Report

Phase II Investigation

Prestolite Corporation
Syracuse, New York

August 1986

O'BRIEN & GERE

O'BRIEN & GERE

August 19, 1986

Mr. Kevin Kelley
Region 7
NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION
7481 Henry Clay Blvd.
Liverpool, NY 13088

Re: Prestolite Corporation
Phase II Investigation Report

File: 1194.004

Dear Kevin:

At the request of Prestolite Corporation, we have enclosed for your review 3 copies of the Phase II Investigation Report for the Prestolite site in Syracuse. The report summarizes the field investigations conducted to date and presents our assessment of the site.

Based on the results presented in the report, we propose that the following activities be conducted to acquire additional site data. This recommended follow-up program has been revised based on our review with you on July 28, 1986.

1. To determine if the treatment tank building basement is connected to the adjacent ground water, it is recommended that two ground water monitoring wells be installed. Analyses of ground water from these wells should include: indicator parameters (pH, specific conductance, TOC, and TOX); cyanide; oil and grease; cadmium; chromium; copper; nickel; zinc; and volatile organics. This list represents compounds detected within various portions of the treatment tank area.

2. A second round of sampling and analyses should be conducted for all ground water monitoring wells. Analyses may be limited to the following compounds detected in soil or water samples on the property; indicator parameters (pH, specific conductance, TOC, and TOX); cyanide; oil and grease; phenol; cadmium; chromium; copper; iron; lead; nickel; zinc; and volatile organics. The purpose of these tests is to verify and support the previous analyses.

3. Additional soil samples should be taken near the loading dock door and analyzed for cyanide. These should include three surface samples, two at a depth of two feet, and one at a depth of four feet. The purpose of these samples is to determine the horizontal and vertical extent of cyanide residuals in the soil.

4. Additional soil samples should be taken from the drainage ditch and analyzed for oil and grease and phenols. These should include three locations downstream of sample site D-1. Each location should be sampled at the surface, at a depth of two feet, and at a depth of four feet. The purpose of these samples is to determine the horizontal and vertical extent of oil and grease and phenol residuals.

5. Two shallow wells should be installed near the downgradient toe of the alleged municipal landfill area (P Area). These wells should be sampled and analyzed for indicator parameters (pH, specific conductance, TOC, and TOX), oil and grease, and volatile organics (BTX). The purpose of these wells is to evaluate the possible dispersion of oil and grease and xylene observed in the deeper borings in the parking lot area (P Area). In addition, soil samples obtained during the installation of these wells should also be analyzed for oil and grease and volatile organics (BTX).

6. The area near the north property boundary (Area I) should be further evaluated. Although ground water monitoring wells do not display any evidence of contamination, the potential for future releases should be assessed. It is recommended that two soil samples be acquired to a depth of three feet. These samples should be analyzed for EP Toxic metals, and volatile and semi-volatile organics.

7. The soils within the Eastwood Sewage Treatment Plant area (E Area) exhibited lead concentrations up to 1650 ppm (wet weight basis). Locations E-1 through E-4 should be re-sampled and analyzed for EP Toxicity lead. In addition, two soil samples to a depth of ten feet should be obtained and analyzed for EP Toxicity lead. The purpose of these tests is to determine if the residuals in the abandoned tank exhibit the characteristic of a hazardous waste. Two additional soil samples outside of the tanks should be acquired to a depth of ten feet and analysed for total and EP toxicity lead. The purpose of these samples is to demonstrate that the lead is confined to the area inside the tanks.

8. Two soil test borings should be obtained outside the Eastwood Sewage Treatment Plant area (E Area). The soil samples should be analyzed for lead to determine if the lead concentrations observed in the soils inside the tanks are confined only to the inside of the tanks.

As discussed during our meeting of July 28, we intend to move ahead with the collection of additional site data pursuant to the above recommendations. In doing so we recognize that the DEC may request work beyond that which we recommend. We will notify you of the dates which we plan for conducting the additional field work.

In addition, we are preparing a summary letter on the proposed tank removal program. We will submit this to you at a later date.

Please contact us after you have completed your review of the enclosed draft report so we may discuss any comments you may have. In the meantime, if you have any questions, please do not hesitate to call.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Steven R. Garver, P.E.
Vice President

SRG:jld:18:36

cc: Mr. Elton Mantle - Prestolite Corp.
Mr. Dale Schmidt - Prestolite Electric Inc.
Mr. John Beale - Allied Automotive
Mr. William F. Blank - Allied Corp
Mr. Frank D. Hale - O'Brien & Gere
Mr. Douglas M. Crawford - O'Brien & Gere

1194.004

REPORT

PHASE II INVESTIGATION

PRESTOLITE CORPORATION

SYRACUSE, NEW YORK

AUGUST, 1986

O'BRIEN & GERE ENGINEERS, INC.
1304 BUCKLEY ROAD
SYRACUSE, NEW YORK 13221

TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

FIGURES

APPENDICES

SECTION 1 - INTRODUCTION AND BACKGROUND

1.01 Introduction

A NYSDEC Phase II Investigation was conducted at the Prestolite facility in Eastwood, New York. This investigation was conducted to determine if past or present operations at the site have had adverse impacts on the soils or groundwater in the area. The investigation included soil sampling and monitoring well installations as summarized in a Work Plan dated July 1985. This Work Plan was reviewed and approved by the NYSDEC.

1.02 Background

The Syracuse facility of Prestolite manufactures and assembles D.C. motors. Plating, anodizing and heat treating of metals were historically a part of the plant operations. Industrial wastes generated by these operations included water-soluble coolants, waste oils, metal sludges and other metal finishing wastes. Employees of the plant indicate that some of the waste materials may have been disposed of on-site. Available documents and aerial photographs reveal that the Eastwood Sewage Treatment Plant occupied portions of the plant property prior to 1960.

Twelve (12) areas have been identified by Prestolite as areas potentially impacted by historical site operations. These areas, shown on Figure 2, are identified as follows:

A. Obsolete Waste Treatment Plant: Four tanks, each approximately 13 to 15 feet deep, were formerly used for treatment of plating wastes. These operations were terminated around 1967-1969, but

the plant has never been formally decommissioned. Water elevations in the tanks appear to fluctuate seasonally, suggesting a possible link to the groundwater table. There is also several feet of standing water within the basement of the adjacent treatment building.

B. It has been alleged that the waste treatment tanks occasionally overflowed to adjacent grounds. Residuals may remain in the soils.

C. Adjacent to the south parking lot is an area where it is alleged that local residents disposed of domestic refuse.

D. A drainage ditch along the west plant boundary is currently used for storm and roof drainage runoff. However, water soluble coolants (containing fats and phenolics) were alleged to have been discharged to this ditch and may have leached into the soils.

E. Within the lawn to the north of the plant is an area where grass is unable to grow. This is the site of an old castings dump and part of the Eastwood Sewage Treatment Plant as described in construction documents. Three unnatural depressions and evidence of a concrete tank or foundation suggest that this area may be the location of the old Eastwood Sewage Treatment Plant Imhoff Tanks.

F&G Parking Lot Annex - an area in which fill was placed and waste materials may have been deposited. Site J may also be an area which was once part of the Eastwood Sewage Treatment Plant. It is alleged that this area was an abandoned City of Syracuse municipal landfill.

H. It is alleged that spillage and disposal at the loading dock area has occurred in the past. These liquids may have drained north and

seeped into soil at the edge of the pavement. Coolants and waste oils may have been involved.

I. Several 55-gallon drums were recently noticed within the wooded area to the north. These drums contained a solid, resin-like material. No liquids were evident. It is suspected that a neighboring industry may have used this area for waste disposal at one time.

K. This is an area near the old heat treating area. Conversations with employees indicate that furnace waste may have been discarded in this area.

SECTION 2 - REGIONAL PHYSIOGRAPHY

2.01 Topography and Drainage

The Prestolite facility is located in Syracuse, New York as shown in Figure 1. The elevation of the site area ranges from 420 feet to 450 feet above mean sea level.

The southern portion of the site, where the manufacturing facility is located, has been terraced into two flat areas through cut and fill activities. The majority of the ground surface on the southern part of the property is covered by asphalt pavement. The northern portion of the site is the lowest area which slopes gently toward the north and the south branch of Ley Creek. This area is covered by natural vegetation. Wetland flora such as cat tails can be found covering portions of this area.

Surface water which enters the site as precipitation or runoff will most likely follow the land contour and drain toward the north. This surface runoff will eventually enter Ley Creek and continue to flow to Onondaga Lake.

2.02 Area Land Uses

The 'neighborhood' in which the Prestolite Facility is located is characterized by both domestic residences and manufacturing facilities. Some manufacturing facilities are still in operation. A number of the former manufacturing facilities, however, have been converted into stores and warehouses.

The Lamson Corporation owns and operates the facility east of Prestolite. This company manufactures D.C. motors.

The property northwest of Prestolite was originally owned and operated by Lennox Furnace Company. The buildings have been converted to warehouses and stores. It is alleged that Lennox used the northern portion of the Prestolite site for disposal of wastes. Several old 55 gallon drums and what is thought to be paint residues can be seen in this area.

The majority of the area west of the Prestolite plant is residential property. The area north of the plant is believed to be the site of an old municipal landfill operated by the Town of Eastwood. This landfill site was later paved for use as a parking lot.

City of Syracuse historical records reveal that the Eastwood Sewage plant was located in the area immediately northwest of the Prestolite Manufacturing building, in an area which is now Prestolite property. The structures located in this area included settling basins, Imhoff tanks and sand drying beds. (See Figure 2)

Drinking water in the area surrounding the Prestolite Facility is supplied by the City of Syracuse or Onondaga County Water Authority. Historical reports (Bruce, 1891) suggest that this area was served by public water supplies prior to 1900. Public documents (Kantrowitz, 1970) were reviewed to determine if residential or industrial water supply wells exist. No wells were located. Additional conversations with a Syracuse Department of Environmental Sanitation engineer revealed that there are no known industrial or residential supplies in the area.

SECTION 3 - FIELD INVESTIGATIONS

3.01 Treatment System Tank and Basement Sampling

The liquid contained in the four treatment tanks and the basement of the treatment system were sampled on October 24, 1984. These samples were collected from the top, middle and bottom portion of the water layer using a VanDoran sampler. The three samples were composited for analysis.

The individual tank composites and the basement composite were analyzed for pH, specific conductance, total organic carbon, total halogenated organics and total cyanide. The individual tank samples were then composited. Additional analyses were conducted on this Tank 1, 2, 3 and 4 composite and on the basement composite. These analyses include: Oil and grease, BOD5, total suspended solids, total kjeldhal nitrogen, total organic phosphorus, arsenic, barium, cadmium, hexavalent and total chromium, lead, mercury, selenium, silver, copper, iron, manganese, sulfate, zinc, chloride, nickel, phenol and tin. Individual tank samples were also analyzed by Prestolite for metals using Inductively Coupled Plasma (ICP) spectroscopy.

During the tank sampling efforts, the dimensions and contents of the individual tanks were measured. The measurements are as follows:

Tank #1:

Dimensions - Length: 12.0 feet
Width: 12.5 feet
Depth: 15 feet

Depth Below Tank Rim

2 inches to 10 feet	-	Water
10 feet to 14.8 feet	-	Pea Gravel, some silt and sand
14.8 feet to 15 feet	-	Silt and fine to coarse sand with copper shavings

Tank #2:

Dimensions - Length: 12 feet
Width: 12.5 feet
Depth: 14 feet

Depth Below Tank Rim

4 inches to 13.8 feet	-	Water
13.8 feet to 14 feet	-	Black, rubbery material

Tank #3:

Dimensions - Length: 9 feet
Width: 9 feet
Depth: 13.8 feet

Depth Below Tank Rim

6 inches to 13.5 feet	-	Water
13.5 feet to 13.8 feet	-	Yellow, orange and red silty material

Tank #4:

Dimensions - Length: 3 feet
Width: 3 feet
Depth: Unknown

Depth Below Tank Rim

0 - 10.7 feet	-	Water
10.7 feet to 12.7 feet	-	Clear to opaque, crystalline material

Note: Could not drive sampler below 12.8 feet

The bottom sediments within the four waste treatment tanks were sampled on October 14, 1985 to determine the characteristics of these materials. An attempt was made to sample the basement sediments as well, however, no sediments were found to be present on the floor.

The sampling effort was completed by driving a 3/4-inch I.D. split-barrel sampler to the bottom of each tank. The sampler was withdrawn and the sample was placed in appropriate containers for shipment to the laboratory for analysis. To prevent cross-contamination, the sampling device was decontaminated between each sample using a high pressure steam cleaner.

3.02 Air Monitoring Survey

Air monitoring surveys were conducted at the Prestolite Facility on two occasions. One survey was conducted during a cursory site inspection on April 18, 1985. The second survey was conducted on October 25, 1985 as part of the site investigation program. The surveys were conducted with a HNU Systems, Inc. Photoionization Analyzer (Model P1-101). This instrument is calibrated to benzene and measures relative concentrations of volatile organics.

The April survey was conducted within the northern portion of the site where 55 gallon drums were observed. Elevated HNU readings of 15-20 ppm were observed near the manhole of a sanitary sewer. No readings above background were observed in the other areas monitored.

The October survey was conducted along the edge of the parking lot annex located north of the building. The slopes along this area were selected as the most likely location for emissions from the 55 gallon drums and from the exposed fill materials. No volatile organics were detected during this survey.

The air monitoring program will not be discussed further in this report due to the absence of any significant HNU readings within the survey areas.

3.03 Monitoring Well Installations

Five (5) monitoring wells were installed in the vicinity of the Prestolite facility to determine the groundwater flow direction and the groundwater quality. The locations of these wells are shown in Figure 2. The well borings were completed using conventional hollow stem auger drilling methods. Soil samples were collected every five (5) feet using Split Barrel Sample Method ASTM D-1587-67.

The upgradient well, MW1, was installed to a depth of 33.5 feet. The bottom three (3) feet of this well were in bedrock. This depth was agreed upon with NYSDEC, as the overburden material was unsaturated. The four downgradient wells were installed five feet below the first encountered groundwater. All four wells were within the upper weathered portion of the bedrock. The depths of these wells range from 15 feet to 24 feet.

The wells were constructed using a 10-foot length of 2-inch I.D., 0.010-inch slot, PVC well screen attached to 2-inch I.D. PVC riser casing with a vented cap. Teflon tape was used at all joints to prevent groundwater from entering the wells above the screened interval. The screen and riser assembly was placed at the bottom of the completed borehole. A washed, graded sand was placed around the screen and extended 1 to 2 feet above the top of the screen. A 2 to 3 feet thick bentonite seal was placed above the sand pack and the remaining annulus was filled with bentonite/cement grout to within 2 feet of the ground surface. A 4-inch diameter locking steel protective casing was placed over the well and cemented in place. Specific construction details of the monitoring wells are contained in Appendix A.

The wells were developed using a bailer or centrifugal pump. The development process was continued until the well yielded sediment free water.

3.04 Soil Sampling

A total of twelve (12) test borings were completed for the purpose of collecting deep soil samples. The sample locations are shown on Figure 3. The test borings were completed using conventional hollow

stem auger drilling methods. Soil samples were continuously collected using Split-Barrel Sampling Method ASTM D-1587-67. All of the soil samples were screened with an HNU photoionization detector immediately after the Split-Barrel Sampler was opened. Samples were selected for further analyses using the HNU meter readings as reference.

All of the equipment which came in contact with soil or groundwater was decontaminated using a high pressure steam wash followed by a clean water rinse. In addition, the Split-Barrel Sampler was cleansed with methane and rinsed with potable water between each sample.

A total of twelve (12) shallow soil sample locations were selected. These locations were approved by NYSDEC and are shown on Figure 3. Each shallow soil sample was collected between 1 and 3 feet below the surface using a clean decontaminated trowel or shovel. The samples were scanned with an HNU meter and packaged for laboratory analyses.

All of the soil samples selected for additional analysis were placed in glass jars with teflon liners and placed on ice for transport to the laboratory. Chain-of-custody procedures were followed throughout the handling and transport of the samples.

3.05 In-Situ Permeability Tests

In-situ permeability tests were attempted on each monitoring well to determine the hydraulic conductivity of the subsurface material in which the wells are screened. The test method involves instantaneous evacuation of a volume of water from the well to create a potential hydraulic difference between the well and the surrounding aquifer. The recovery rate of the water level within the well is then monitored

and the hydraulic conductivity is calculated using Hvorslev's formula. A hydraulic conductivity test was completed on MW1.

The high yield of the downgradient wells (MW2, MW3, MW4, and MW5) prohibited creation of the necessary hydraulic difference between the well and surrounding aquifer. The tests, therefore, could not be completed on these wells. A minimum hydraulic conductivity was calculated based on the pumping rate used during the evacuation attempts.

3.06 Groundwater Sampling and Water Level Monitoring

Groundwater samples were collected from each of the monitoring wells on October 24, 1985. Prior to collection of samples, three well volumes of groundwater were evacuated using a clean stainless steel bailer. The samples were then collected in containers with appropriate preservatives and placed on ice for transport to the laboratory. The samples collected for metals analyses were filtered prior to preservation. Chain of custody procedures were followed during shipment of the samples. The bailer was cleansed with methanol, and the rope was replaced after sampling each well to avoid cross-contamination.

Groundwater levels were measured on October 24, 1985 and February 11, 1986. These data were used to determine the groundwater flow direction in the vicinity of the site. The data are included in Table 1.

SECTION 4 - SITE CHARACTERISTICS

4.01 Geology

The Prestolite property is located on the northern slope of a high bedrock area. The ground and bedrock surfaces slope toward the north as they approach the flat-lying floodplain of the Pleistocene Lake Iroquois (Figures 1 and 3). The unconsolidated deposits on the site are composed primarily of silty glacial till. To the north of the site the overburden changes to lake deposits of sand overlain by less permeable silt and clay.

The drilling logs reveal that the glacial till deposit ranges in thickness from 21 feet on the southern portion of the site to less than 5 feet in the lower northern area. In the southern part of the site the till deposit has been covered by various types of fill material over the years as the land was terraced by cut and fill activities to facilitate buildings and parking areas for the manufacturing operations (See Figure 3).

The type of bedrock varies across the site. The upgradient well log reveals a black shale bedrock at 30.5 feet below the ground surface. The bedrock in the vicinity of the downgradient wells is a green silty shale which underlies the black shale. This silty shale is highly weathered at the surface as evidenced by the layer of green silt and rock fragments encountered in the borings.

4.02 Groundwater Flow

The first encountered groundwater in wells MW2, 3, 4 and 5 was found to occur at the bedrock - overburden interface. Water was

encountered at 8 feet below ground level at MW1. However, this occurrence was determined to be a localized perched condition due to the filling that has taken place on top of the low permeability till in the area surrounding MW1. All of the monitoring wells were screened at the bedrock-overburden interface. The elevations of the screened intervals are presented in Table 1.

Groundwater elevations were measured on October 24, 1985 and February 11, 1986. These measurements are included in Table 1. The groundwater at MW1 is 20 to 40 feet higher than the groundwater in the downgradient wells. The bedrock surface is correspondingly lower at the downgradient well locations. The data suggest that the groundwater flow potential in the area is controlled primarily by the slope of the bedrock surface. The groundwater elevations in the downgradient wells are within a range of 0.3 feet of each other which suggests a flat hydraulic gradient in this area.

The groundwater elevation in MW1 was 20 feet higher on February 11, 1986 than October 24, 1985. This phenomenon may be due to localized recharge from the higher elevations south of MW1 from rains and snowmelt the week before the February measurements were collected.

4.03 Groundwater Quality

Priority pollutant analyses were completed on the groundwater samples collected from each of the five monitoring wells. The data are presented in Table 6. Only the metals analyses are presented in the table as no organic contaminants were detected. A complete list of the

organic parameters and their respective detection limits is included in Appendix B.

The only metals detected in the groundwater analyses were silver and zinc. Silver was found in MW1, the upgradient well, and MW2 the easternmost downgradient well. The levels of silver in MW1 and MW2 were 0.03 ppm and 0.02 ppm, respectively. Neither of these concentrations are above the New York State (NYS) Class GA groundwater standard of 0.05 mg/l. (NYCRR, Title 6, Part 703.5). Zinc was detected in all of the downgradient wells at levels ranging from 0.03 mg/l to 0.04 mg/l. These levels are below the NYS Class GA groundwater limit of 5 mg/l.

4.04 Treatment System Tank Contents

The results of the treatment system tanks and basement sampling are presented in Tables 1, 2, 3 and 4. As discussed in Section 3.01, the water within the tanks and basement were sampled in October 1984 and the sediments were sampled during this site investigation in October 1985.

The water within Tanks 1 and 2 contain very low or non-detectable levels of the metals analyzed for (Tables 1 and 2). Additionally, the general indicators (TOC, TOX, pH and Specific Conductance) did not indicate anything of concern. All of the parameters tested indicated concentrations which would be compatible with discharge to the Syracuse Metro publicly-owned treatment works (POTW).

Tank 1 contained about 5 feet of pea gravel underlain by 2 inches of silt with copper shavings. Tank 2 did not contain gravel but had approximately 2 inches of silt on the bottom. The analyses completed

on sediment samples collected from these two tanks indicate high levels of copper in Tank 1 and iron in Tanks 1 and 2 (Table 3). These elevated levels are most likely due to the copper shavings observed in the sediments in Tank 1 and the rusted iron plates which are used to cover the tank openings.

The water within Tank 3 contained levels cadmium, copper, zinc and cyanide which would require pretreatment to be acceptable for discharge to the Syracuse Metro POTW. The Total Organic Halogen (TOX) results were slightly elevated, however, the volatile organic scan did not indicate the presence of any priority pollutant halogenated organics. (Table 4). It is possible that the high TOX values are due to the presence of chlorides as indicated by a specific conductance of 3360 umhos/cm (Table 1).

The sediments in Tank 3 may be of concern due to the elevated levels of cadmium, chromium, zinc and cyanide found to be present (Table 3). The EPTOX level of cadmium, 8.4 ppm, in these sediments is sufficient to characterize the material as a hazardous waste, if it were not mixed with water (NYCRR Title 6, Section 371.4).

Tank 4 is labeled "Sodium Hypochlorite". It is likely that the hypochlorite content has decomposed within the last 10 years so that the principal constituents are now sodium hydroxide and sodium chloride. This is consistent with the measured pH of 12.5 and specific conductance of 323,500 umhos/cm (Table 1). Metals and other parameters analyzed for in Tank 4 were not at levels which would preclude discharge to the Syracuse Metro POTW. (Tables 1 and 2). The TOX reading (>1000 mg/l) is likely due to interference from high chloride

concentrations, suggested by the specific conductance value, as no halogenated priority pollutants were found (Table 4).

The standing water in the basement is generally free of heavy metals, however, the pH (10.3) and cyanide (29 mg/l) content would require treatment to be acceptable for discharge to the Syracuse Metro POTW. (Tables 1 and 2). These constituents could be due to pipe leaks or spills which occurred during the plant operation. They could also be indicative of a connection between the basement and Tank 3 or, more importantly, the basement and localized perched groundwater.

Four surface soil samples (Figure 2) surrounding the treatment tanks were also analyzed (Table 7). Low levels of cyanide and heavy metals (copper, zinc and lead) were present. The observed concentrations presented in Table 7 are such that the soil would not be expected to exhibit the characteristic of an EP Toxic hazardous waste.

4.05 Soil Analyses Results

Analyses of soil samples are presented in Table 8 (Drainage Ditch, Sewage Plant Areas, Loading Dock Area), and Table 9 (Parking Lot Area).

In general, the only heavy metal of potential concern is lead which is somewhat elevated throughout the site. Lead concentrations on the order of 500 to 1000 mg/kg are not uncommon along roadways. Lead concentrations were consistently elevated (1010 to 1650 mg/kg) in the Sewage Plant Area (Area E). Soil site "F" was the only other spot where lead concentration was above 1000 mg/kg.

The only other notable metals were nickel and zinc adjacent to the Loading Dock Area. There are no regulatory criteria for these metals and the concentrations are not likely to represent concern.

PCBs were not detected in any soil samples.

Cyanide was elevated (694 ppm) in one soil sample ("K") near the Loading Dock door.

Phenols were detected at several spots, but not at concentrations indicative of a problem.

Oil and grease measurements were elevated at several spots: Drainage Ditch D1, Sewage Plant E1 and E4, Loading Dock H1 and H2, and Parking Lot J1, P3, P4 and P7. Organics in P7 extended to a depth of 16 ft. where xylenes were also detected. The only other volatile organics detected were ethylbenzene and xylene at H1.

It should be noted that the oil and grease concentrations in soil samples within the Parking Lot area generally increase with depth. The deepest samples are those near the depth at which saturated soil was encountered. The organic residuals appear to have accumulated from the municipal refuse which was allegedly deposited in this location.

It should be noted that none of the detected compounds in soil were present at levels above state ground water standards in the downgradient groundwater monitoring wells as presented in Table 6.

4.06 Hazard Ranking Score

NYSDEC requires that a Hazard Ranking Score be developed as part of conducting a Phase II Investigation. The MITRE System, also known as the Hazard Ranking System, was developed for the EPA (FR

Vol. 47, No. 137, July 16, 1982) as a scoring method to evaluate the potential of a site to cause either health or environmental concerns.

The MITRE System uses several routes to rank the hazard of each release or potential release of substances from a site: Groundwater, Surface Water, Air, Direct Contact and Fire and Explosion. To calculate the score, a numerical value for each of the following: groundwater, surface water and air is determined. These scores are then combined into a total score for the site. The remaining evaluations, direct contact, fire and explosion, are calculated, but not included in the overall site ranking.

Data generated during this site investigation was the only data base used in the documentation of the MITRE System. Results are presented in Appendix B. The calculated HRS score was 2.18, which is well below the minimum criteria which has been used for designating sites included on the National Priorities List.

SECTION 5 - SUMMARY

5.01 Summary

A NYSDEC Phase II Investigation was conducted at the Prestolite property in Syracuse, New York. Historic records and plant employees have indicated that industrial residues may have been disposed on plant property. Areas investigated included the obsolete waste treatment plant, an old municipal refuse area, the former site of the Eastwood Sewage Treatment Plant, several drainage areas adjacent to the plant, and a site of refuse disposal by offsite industries.

The site topography is such that surface drainage is generally to the north. Adjacent land uses include domestic, commercial and manufacturing facilities. The City of Syracuse has had a public water supply system since before the year 1900. These supplies derive from lake Ontario and Skaneateles Lake. Ground water is not used for potable water supply within the city. A record search of existing water supply wells has confirmed that ground water supplies are relatively undeveloped within the area of the Prestolite facility.

Field investigations included sampling and volume measurements within the obsolete treatment tank areas. Air monitoring surveys did not detect volatile emissions of any significance. Five monitoring wells were installed (one upgradient and four downgradient). Soil samples were collected from the surface to a maximum of 16 ft. In-situ hydraulic conductivity tests indicated a very permeable strata screened by the downgradient wells.

Groundwater elevations were measured on two occasions and samples were collected once.

Bedrock under the site slopes to the north and is found between 5 and 30.5 ft beneath the site. In general, the first-encountered groundwater occurs near the bedrock-overburden interface. Perched groundwater is found on the south of the site, while the hydraulic gradient across the remainder of the site is relatively flat.

Analyses of organics and heavy metals in the downgradient ground waters did not detect any concentrations above NYS Class GA ground water standards.

The analyses of waters in the abandoned Treatment Tanks Nos. 1 and 2 indicate that they are acceptable for discharge to the Syracuse Metro POTW. In Tank No. 3, the concentrations of cadmium, copper, zinc and cyanide indicate that pretreatment will be necessary prior to discharge to the POTW. Tank 4 appears to be a degraded sodium hypochlorite solution. The standing water in the basement area of the Treatment Tanks has pH and cyanide above the standards for discharge to the Syracuse Metro POTW. Soil samples near the Treatment Tank area did not display any concentrations judged to be of concern.

Soil sample analyses showed lead to be the only metal of marginal concern, principally near the old Eastwood Sewage Plant Area. Oil and grease measurements were elevated at several spots. Volatile organics were detected in two soil locations.

A Hazard Ranking Score was developed based on the information and data contained in this Report. The HRS score of 2.18 falls well below the minimum criteria which has been used for designating sites included on the National Priorities List.

Respectfully submitted,

O'BRIEN & GERE ENGINEERS, INC.

Steven R. Garver, P.E.
Vice President

Prepared by:

D.Y. Wright
M.P. Quirk
T.J. Jenczewski

Tables

O'BRIEN & GERE

TABLE 1

ANALYSIS OF TANK AND BASEMENT LIQUIDS

PRESTOLITE CORPORATION

Sample No.	43944	43945	43946	43947	43948	43949	Onon.	NYS
Sample Loc.	Tank 1	Tank 2	Tank 3	Tank 4	Tank Compos.	Basement	Co. Class Ord.	GA Std
Constituent								
-pH	7.2	7.2	8.1	12.5	13.1	10.3	5.5-9.5	6.5-8.5
-Sp Conductance	150	150	3360	323500	69200	27600		
-TOC	10	13	120	160	< 1	34		
-TOX#1	13	14	250	> 1000	160	17		
-TOX#2	19	16	260		150	18		
-Oil & Grease	< 1	70	460	74	150	10	100	
-BOD5					< 1	< 1	300	
-Tot Susp Solids					115	1	350	
-Nitrogen (tot Kjeldhal)					25.7	2.2	40	
-Phosphorus (tot inorg)					1.5	0.04	10	
-Arsenic					< 0.01	< 0.01		0.025
-Barium					< 0.1	< 0.1		1
-Cadmium					4.9	< 0.01	2	0.01
-Chromium (hex)					0.01	< 0.01	4	0.05
-Chromium (tot)					0.93	< 0.01	8	
-Lead					0.15	< 0.01	1	0.025
-Mercury					0.0008	0.0008	0.05	0.002
-Selenium					< 0.01	< 0.01		0.02
-Silver					0.02	< 0.01	1	0.05
-Copper					6.9	< 0.01	5	1
-Iron					0.43	< 0.01		0.3
-Manganese					0.03	< 0.01		0.3
-Sulfate					120	25		250
-Zinc					8.3	0.01	5	5
-Chloride					180	4		250
-Cyanide (Total)	0.05	0.05	115.4	0.05	18.4	29	2	0.2
-Nickel					0.34	< 0.01	5	
-Phenol					< 0.001	0.004	3	0.001
-Tin					< 1	< 1		

* All results except the following are expressed as mg/l:
pH (SU)
Sp. Cond (umhos/cm)

TABLE 2

ANALYSIS OF TANK AND BASEMENT LIQUIDS

PRESTOLITE CORPORATION

Element	Tank 1	Tank 2	Tank 3	Tank 4	Basement	Detection Limit
Ag	N.D.	N.D.	N.D.	.0185	.0804	.0140
Al	.2752	.2339	.3668	.8945	.6279	.0956
As	N.D.	N.D.	.0485	.0844	.1003	.0310
B	N.D.	.1580	.5823	.9790	.1694	.1406
Ba	.0268	.0256	.0163	.0035		.0008
Bi	N.D.	N.D.	.1633	.0465	.1029	.0262
Ca	23.20	23.57	12.31	3.820	7.363	.0312
Cd	N.D.	N.D.	81.11	.7762	N.D.	.0018
Co	N.D.	N.D.	.2065	N.D.	N.D.	.0084
Cu	N.D.	N.D.	37.81	.7346	N.D.	.0070
Fe	.5398	.8133	1.384	4.271		.0092
Mg	2.276	2.186	9.575	.9396	4.24	.0006
Mn	N.D.	N.D.	N.D.	N.D.	N.D.	.0016
Ni	N.D.	N.D.	.3199	.0246	.0179	.0096
Pb	N.D.	N.D.	N.D.	N.D.	N.D.	.0644
Pt	N.D.	N.D.	.1437	.0965	.1574	.0384
Sb	N.D.	N.D.	.1274	.0503	.1049	.0216
Se	N.D.	N.D.	N.D.	N.D.		.0332
Sn	N.D.	N.D.	.1922	.1605	N.D.	.0886
Sr	.046	.0467	.1291	.3328	.0710	.0008
Te	N.D.	N.D.	.5810	N.D.	.1738	.0508
Zn	N.D.	N.D.	45.59	1.222	.0858	.0016

* Analyses completed by Prestolite Corp. Results reported as mg/l (ppm).
* Methodology: I.C.P.

TABLE 3

ANALYSIS OF TANK SEDIMENTS
PRESTOLITE CORPORATION

Parameter	Tank #1	Tank #2	Tank #3	Tank #4
PCB 1254 (PPB)	<5	2.9	2.2	NA
Oil and Grease (PPM)	2080	77000	27200	180
Total Cyanide (PPM)	<5	157	1100	<5
Total Phenols (PPM)	0.06	0.6	0.4	<0.02
Metals (PPM)				
Chromium	12	91	1060	<1
Copper	33600	107	80	42
Nickel	39	19	16	33
Tin	1240	355	<1	<1
Zinc	795	1320	3250	0.17
Iron	14510	20120	13210	4830
EP-Toxicity Leach Test - Metals				
Arsenic	<0.01	<0.01	<0.01	<0.01
Barium	1.6	<0.1	<0.1	<0.1
Cadmium	0.08	0.52	8.4	0.05
Hexavalent Chromium	0.02	0.01	0.05	0.08
Lead	0.14	<0.01	<0.01	0.41
Mercury	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	<0.01	<0.01	<0.01	<0.01
Silver	<0.01	<0.01	0.03	<0.08
Volatile Organics (PPB)				
Xylenes	<100	43000	NA	NA
Ethylbenzene	<100	4000	NA	NA

TABLE 4

ANALYSES OF TANK 3 AND TANK 4 COMPOSITES
FOR VOLATILE ORGANICS

PRESTOLITE CORPORATION

Sediment water ?

& PPM

Samples Collected 12-21-84
Samples Received 12-21-84

Component	Tank 3 PPM	Tank 4 PPM
Chloromethane	<1	<1
Bromomethane	<1	<1
Dichlorodifluoromethane	<1	<1
Vinyl chloride	<1	<1
Chloroethane	<1	<1
Methylene chloride	<1	<1
Trichlorofluoromethane	<1	<1
1,1-Dichloroethene	<1	<1
1,1-Dichloroethane	<1	<1
t-1,2-Dichloroethene	<1	<1
Chloroform	<1	<1
1,2-Dichloroethane	<1	<1
1,1,1-Trichloroethane	<1	<1
Carbon tetrachloride	<1	<1
Bromodichloromethane	<1	<1
1,2-Dichloropropane	<1	<1
t-1,3-Dichloropropene	<1	<1
Trichloroethene	<1	<1
Benzene	<1	<1
Dibromochloromethane	<1	<1
1,1,2-Trichloroethane	<1	<1
c-1,3-Dichloropropene	<1	<1
2-Chloroethylvinyl ether	<1	<1
Bromoform	<1	<1
1,1,2,2-Tetrachloroethane	<1	<1
Tetrachloroethene	<1	<1
Toluene	<1	<1
Chlorobenzene	<1	<1
Ethylbenzene	<1	<1

Methodology: Federal Register - 40 CFR, Part 136, December 3, 1979

TABLE 5
WELL DETAILS AND HYDROGEOLOGIC DATA
PRESTOLITE CORPORATION

Well	Ground Surface Elevation *	Screened Interval	Hydraulic Conductivity (cm/s)	Ground Water Elevations 10/24/85	2/11/86
MW1	98.16'	62.86' - 72.86'	6.9 x 10-5	71.6'	92.5'
MW2	63.51'	42.21' - 52.21'	10-3	53.4'	52.5'
MW3	62.52'	45.77' - 55.77'	10-3	52.3'	52.4'
MW4	63.95'	47.25' - 57.25'	10-3	52.2'	52.6'
MW5	66.14'	40.14' - 50.14'	10-3	52.2'	52.7'

NOTE: * - Elevations Based on Assumed Datum

TABLE 6
GROUNDWATER QUALITY RESULTS
PRESTOLITE CORPORATION

WELL NUMBER	MW1	MW2	MW3	MW4	MW5*	MW5*	MW5*
Metals (ppm)							
Arsenic	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01	.01
Cadmium	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01
Chromium (Total)	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01
Copper	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01
Lead	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01
Mercury	LT .0005	LT .0005	LT .0005	0.0005	LT .0005	LT .0005	LT .0005
Nickel	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01
Selenium	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01	LT .01
Silver	.03	0.02	LT .01	LT .01	LT .01	LT .01	LT .01
Zinc	LT .01	0.03	0.04	0.03	0.03	0.04	0.03
Iron							
Cyanide (Total)	LT .05	LT .05	LT .05	LT .05	LT .05	LT .05	LT .05
Volatile Organics **							

NOTE: * - MW5 Sample Analyzed in Triplicate (QA/QC)
** - No Volatile Organics Detected
LT - indicates "less than" the concentration shown.

A Summary of the Priority Pollutant Analysis Parameters with Detection Limits is included as Appendix B.

TABLE 7

ANALYSIS OF TREATMENT PLANT SOILS
PRESTOLITE CORPORATION

Depth	B1 1'-2'	B2 1'-2'	B3 1'-2'	B4 1'-2'
PCB (PPB)	<500	<500	<500	<500
Cyanide (Total)	57.2	<5.0	35.7	92.9
Cyanide (Amenable)	NA	NA	NA	NA
Phenols	<0.1	<0.1	<0.1	<0.1
Oil & Grease	600	400	3640	100
Metals (PPM)				
Arsenic	4	4	4.4	3.7
Barium	130	240	470	200
Cadmium	3	22	32	43
Lead	41	238	18	780
Mercury	0.13	0.22	0.07	0.09
Selenium	1.0	1.0	1.0	1.0
Silver	3	2	3	4
Chromium (TOT)	9	28	12	9
Copper	148	250	31	955
Nickel	51	327	40	39
Tin	<1.0	<1.0	<1.0	<1.0
Zinc	145	681	443	575
Iron	18200	18900	17210	16540
Ethylbenzene (PPB)	75	<10	<10	<10

Note: All Soils Analyses Reported on Wet Weight Basis.

TABLE 8

SOILS ANALYSIS RESULTS

PRESTOLITE CORPORATION

	DRAINAGE DITCH		SEWAGE PLANT AREA				LOADING DOCK AREA			DOOR
Sample	D1	D2	E1	E2	E3	E4	H1	H2	H3	K
Depth	1'-3'	1'-3'	0'-12'	14'-16.7'	10'-20'	18'-20.5'	1'-3'	1'-3'	1'-3'	1'-3'
PCB (ppb)	LT 500	LT 500	LT 500	LT 500	LT 500	LT 500	LT 500	LT 500	LT 500	LT 500
Cyanide (Total - ppm)	LT 5.0	LT 5.0	LT 5.0	LT 5.0	LT 5.0	LT 5.0	LT 5.0	LT 5.0	LT 5.0	694
Phenols (ppm)	0.4	0.6	LT 0.1	LT 0.1	LT 0.1	LT 0.1	3	LT 0.1	LT 0.1	LT 0.1
Oil and Grease (ppm)	7,300	100	4,250	300	307	1,835	8,100	2,500	1,500	400
Metals (ppm)										
Arsenic	3.5	3.9	3.7	4.5	5	3.9	4.2	3.4	3.9	4.3
Barium	190	60	140	700	1,000	120	1,000	250	130	80
Cadmium	3	2	2	2	2	1	15	6	2	2
Lead	9	124	1,650	1,010	1,280	1,600	275	156	307	18
Mercury	0.11	0.21	0.15	0.23	0.31	0.30	0.14	0.15	0.11	0.33
Selenium	LT 1.0	LT 1.0	LT 1.0	LT 1.0	LT 1.0	LT 1.0	LT 1.0	LT 1.0	LT 1.0	LT 1.0
Silver	2	LT 1.0	3	2	2	2	5	3	2	1.0
Chromium (TOT)	3	31	2	2	3	6	9	17	5	15
Copper	26	123	77	79	72	46	279	325	615	17
Nickel	19	32	20	19	22	14	29	142	179	24
Tin	LT 1.0	LT 1.0	LT 1.0	LT 1.0	LT 1.0	LT 1.0	887	1,064	LT 1.0	LT 1.0
Zinc	42	169	117	1,811	1,894	233	385	367	291	85
Iron	12,460	20,900	19,510	39,400	46,900	18,090	14,290	18,260	20,700	34,400
Volatile Organics (ppb)										
Ethylbenzene	NA	NA	NA	NA	NA	NA	17	LT 10	LT 10	LT 10
Xylenes	NA	NA	NA	NA	NA	NA	250	LT 10	LT 10	LT 10

Notes: All Soils Analyses Reported on Wet Weight Basis
Volatile Organic Parameters and Respective Detection Limits are Presented in Appendix B
NA - Not Analyzed
LT - Less Than

TABLE 9

SOILS ANALYSIS RESULTS

PRESTOLITE CORPORATION

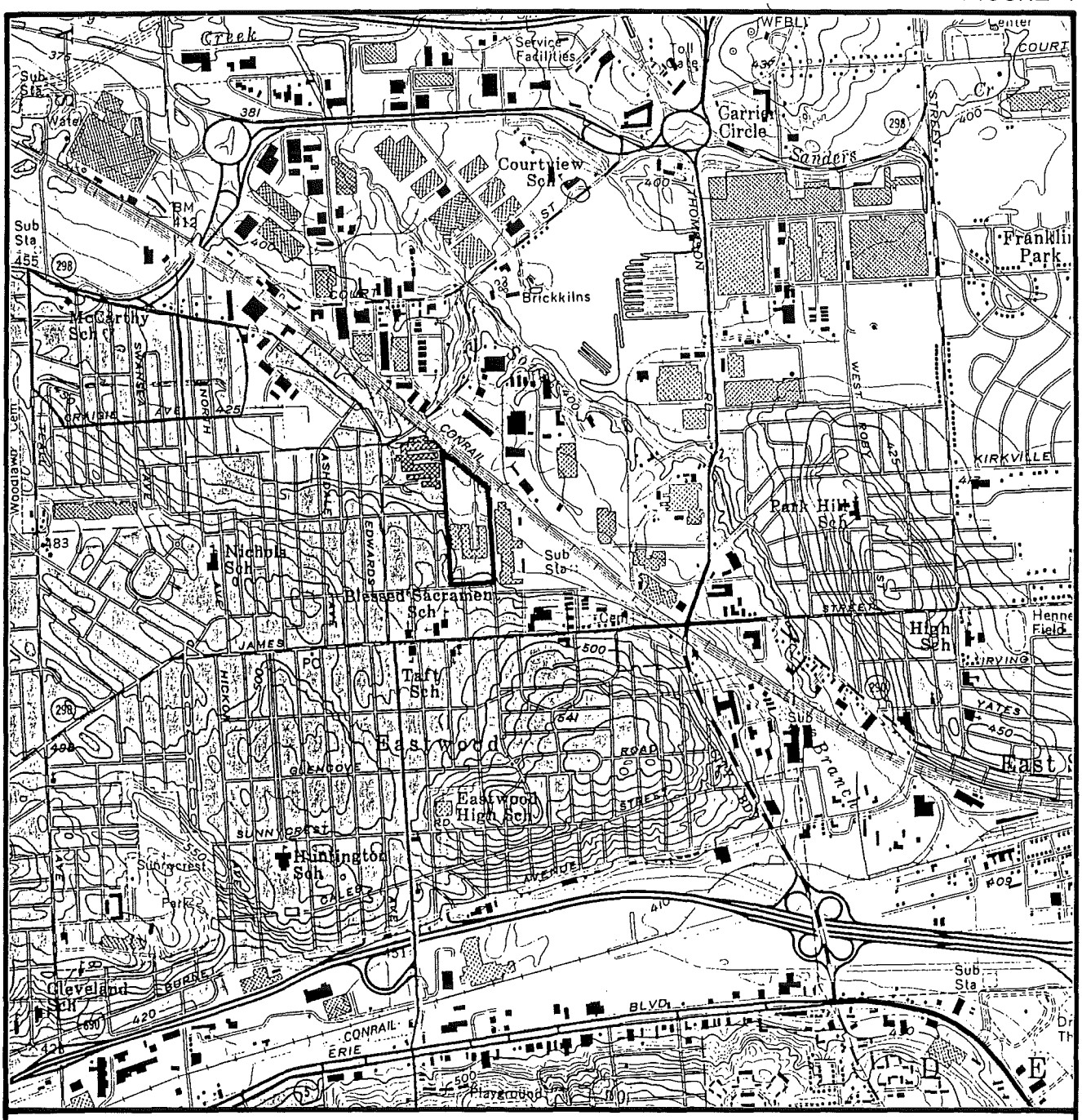
	PARKING LOT AREA													
Depth	F 1'-3'	G 1'-3'	J1 0'-2'	J1 12'-14'	P1 1'-3'	P2 1'-3'	P3 2'-4'	P3 2'-12'	P4 4'-6'	P5 1'-3'	P6 6'-13'	P6 13'-16'	P7 6'-8'	P7 14'-16'
PCB (ppb)	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
Cyanide (Total - ppm)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Phenols (ppm)	<.1	<.1	<.1	20	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Oil and Grease (ppm)	400	<100	<100	2,000	1,000	900	2,460	1,120	2,520	700	50	1,160	2,280	3,500
Metals (ppm)														
Arsenic	5	4.3	3.7	2.7	4.1	4.2	4.7	4.0	3.4	3.8	4.8	4.1	3.7	3.8
Barium	330	100	50	420	200	100	90	440	130	60	170	280	150	200
Cadmium	1	5	<1.0	7	2	2	<1	2	<1	<1	3	2	<1	3
Lead	1,880	78	92	444	50	50	188	348	<1	41	750	230	<1	174
Mercury	0.18	0.19	0.3	7.0	0.12	0.05	0.05	0.16	0.28	0.16	0.5	1.8	0.07	3.0
Selenium	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Silver	<1.0	2	<1.0	4	3	3	<1	3	2	1	3	5	<1	3
Chromium (TOT)	11	5	<1.0	32	3	<1	5	6	2	2	19	23	3	23
Copper	28	118	28	236	107	44	31	61	20	67	274	75	17	130
Nickel	19	70	13	30	34	31	10	18	23	13	0.25	0.28	18	25
Tin	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	534	134	80	1,976	122	102	204	157	32	106	675	510	24	568
Iron	5,990	20,040	3,720	7,800	12,930	17,870	6,600	36,400	16,070	3,220	19,800	13,800	16,620	17,230
Volatile Organics (ppb)														
Ethylbenzene	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	14,000

Notes: All Soils Analyses Reported on Wet Weight Basis
Volatile Organic Parameters and Respective Detection Limits are Included in Appendix B.
NA - Not Analyzed

Figures

O'BRIEN & GERE

FIGURE 1

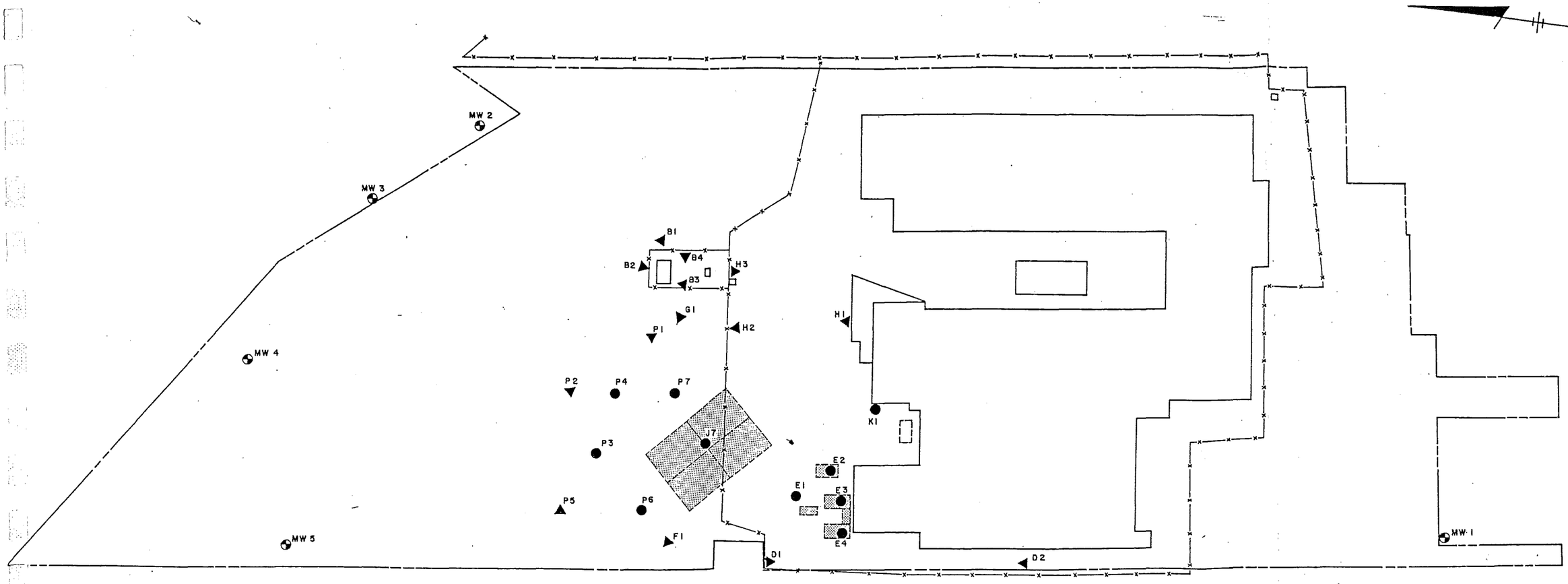


PRESTOLITE CORPORATION
SYRACUSE N.Y.

ADAPTED FROM U.S.G.S. MAPS SYRACUSE EAST N.Y. (1978)

SCALE 1"= 2000'
CONTOUR INTERVAL 10'

O'BRIEN & GERE



LEGEND

- DEEP SOIL SAMPLE
- SHALLOW SOIL SAMPLE
- MONITORING WELL
- APPROXIMATE LOCATION OF OLD MUNICIPAL PLANT

FIGURE 2

SITE MAP

PRESTOLITE CORPORATION

SYRACUSE, NEW YORK

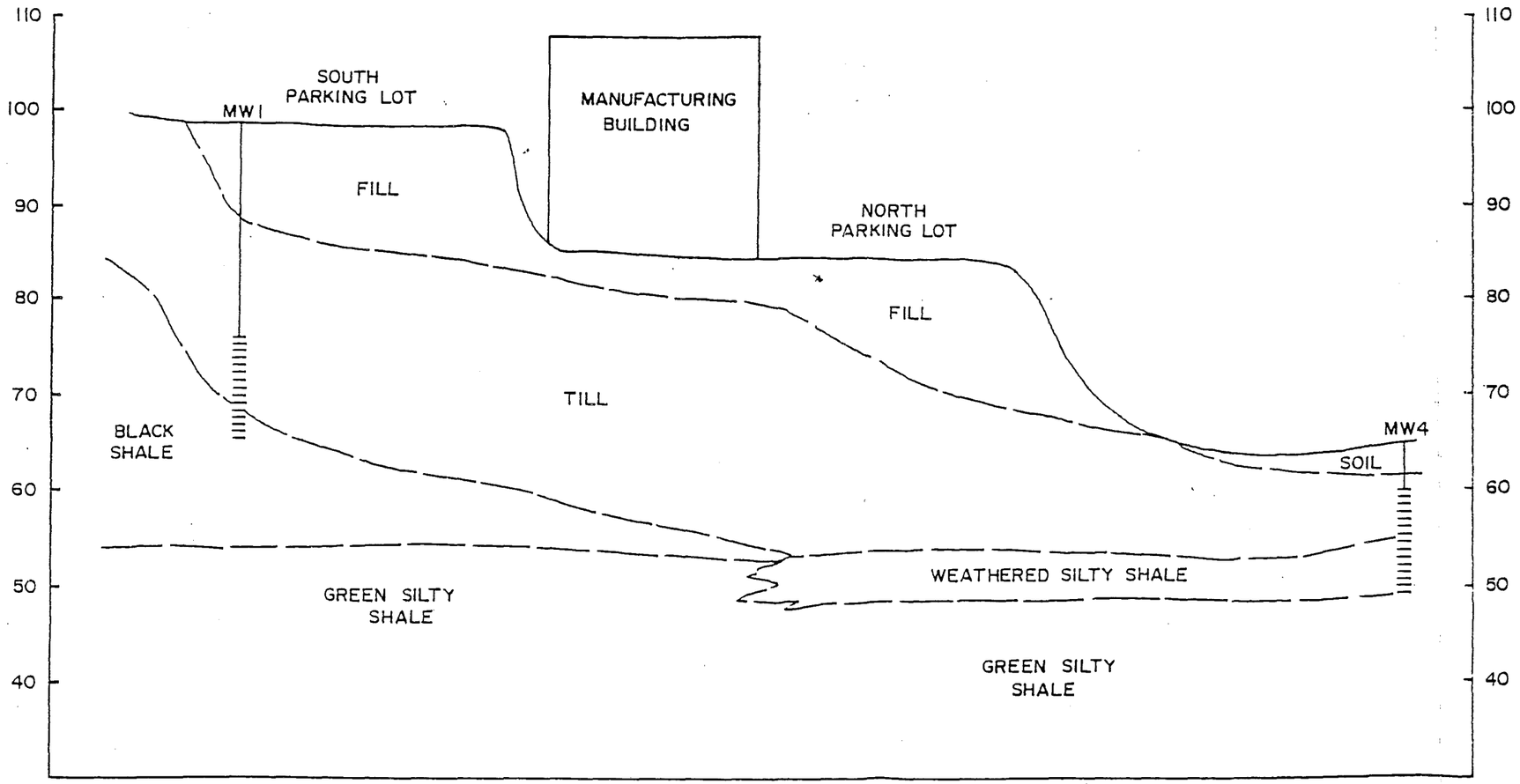
60 0 60

SCALE 1" = 60'

O'BRIEN & GERE

O'Brien & Gere Engineers, Inc.

FIGURE 3



PRESTOLITE CORPORATION
SYRACUSE, NEW YORK

GENERALIZED
CROSS SECTION

LEGEND

WELL SCREEN INTERVAL

SCALES:

HORIZ. 1" = 120' 120 0 120

VERT. 1" = 10' 10 0 10

O'BRIEN & GERE

Appendices

O'BRIEN & GERE

APPENDIX A

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING NUMBER MW 1
SHEET ____ OF ____
FILE ____

PROJECT LOCATION EASTWOOD, NY

CLIENT PRESTOLITE

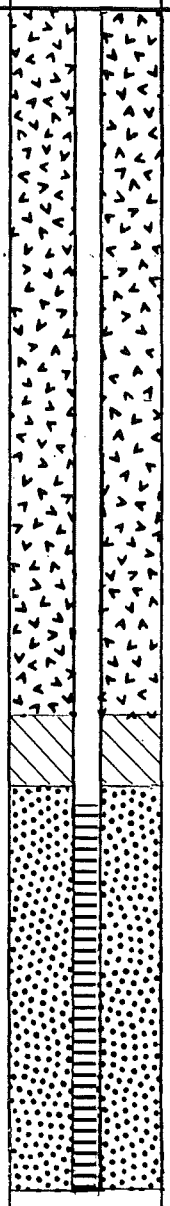
SAMPLER
TYPE: ____
HAMMER FALL ____

GROUNDWATER READINGS

DATE	DEPTH		

BORING CO. PARRATT-WOLFF
FOREMAN ROBERT STEVENS
OBG GEOLOGIST PETER BOGARDUS / D. WRIGHT

BORING LOCATION MW 1
GROUND ELEV. ____
DATE STARTED 10/17/85 DATE ENDED 10/17/85

DEPTH	"N" VALVE	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	SAMPLE DESCRIPTION	STRA. CHG. GEN. DESC.	EQUIPMENT INSTALLED	FIELD TESTING	RMKS
		1		0-1.5'	3-5-6	Miscellaneous Fill				
						3'				
						Brown, moist, SILT, some Fine to Coarse Gravel, trace Clay				
5		2		5'-6.5'	12-12-13					
						8'				
						Wet SILT, some fine to coarse GRAVEL, trace Clay 9'				
						Red-Brown, dry SILT and CLAY, little fine to coarse Gravel (TILL)				
10		3		10'-11.5'	12-16-16					
15		4		15'-16.5'	13-26-33					
20		5		20-21.5'	18-25-34					
						24'				
25		6		25'-26.5'	23-38-50	Brown, dry, SILT and CLAY, little fine to coarse Gravel (Till)				
						30.5'				
30		7		30'-30.5'	28-100/0	Black Shale Bedrock				

REMARKS:

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING NUMBER MW2
SHEET 1 OF 1
FILE

PROJECT LOCATION EASTWOOD, NY

CLIENT PRESTOLITE

SAMPLER
TYPE:
HAMMER FALL

GROUNDWATER READINGS

DATE	DEPTH		

BORING CO. PARRATT-WOLFF
FOREMAN ROBERT STEVENS
OBG GEOLOGIST PETER BOGARDUS / D. WRIGHT

BORING LOCATION MW 2
GROUND ELEV.
DATE STARTED DATE ENDED

DEPTH	"N" VALVE	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	SAMPLE DESCRIPTION	STRA. CHG. GEN. DESC.	EQUIPMENT INSTALLED	FIELD TESTING	RMKS
		1		0-1.5'	1-4-3	Dark Brown-Black, moist, SILT, some fine to coarse Sand, some fine to coarse Gravel, Roots 3'			HNU = .2	
5		2		5-6.5'	12-11-13	Red-green, dry, SILT, some fine to coarse Gravel, some Clay (TILL) 8'			HNU = .6	
10		3		10'-11.5'	6-20-32	Green, dry, SILT 13.5'			HNU = .5	
15		4		15'-16.5'	22-50/.9	Green, moist, SILT little weathered Siltstone fragments			HNU = 1.2	
20		5		20'-21.5'	12-15-32	B.O.B. 21.5'			HNU = 1.4	

REMARKS:

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING NUMBER MW-3
SHEET _____ OF _____
FILE

PROJECT LOCATION EASTWOOD, NY

CLIENT PRESTOLITE

SAMPLER
TYPE: _____
HAMMER FALL _____

GROUNDWATER READINGS

DATE	DEPTH		

BORING CO. PARRATT-WOLFF
FOREMAN ROBERT STEVENS
OBG GEOLOGIST PETER BOGARDUS / D. WRIGHT

BORING LOCATION MW-3
GROUND ELEV. _____
DATE STARTED _____ DATE ENDED _____

DEPTH	"N" VALVE	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	SAMPLE DESCRIPTION	STRA. CHG. GEN. DESC.	EQUIPMENT INSTALLED	FIELD TESTING	RMKS
		1		0-1.5	1-2-4	Red-orange, moist, SILT, some fine to coarse Sand, little fine to coarse Gravel				
						3'				
						Pink-brown, moist, SILT, and CLAY, some fine to coarse Gravel				
5		2		5'-6.5'	8-9-	6'				
					13	Green, dry, SILT				
						9'				
						Green, moist, SILT				
10		3		10'-11.5'	7-14-	11'				
					18	Green, wet, SILT, weathered siltstone fragments				
15		4		15'-16.5'	20-30-					
					40					
						BOB 16.5				

REMARKS:

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING NUMBER MW4
SHEET _____ OF _____
FILE

PROJECT LOCATION EASTWOOD, NY

CLIENT PRESTOLITE

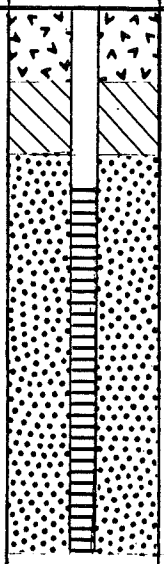
SAMPLER
TYPE: _____
HAMMER FALL _____

GROUNDWATER READINGS

DATE	DEPTH		

BORING CO. PARRATT-WOLFF
FOREMAN ROBERT STEVENS
OBG GEOLOGIST PETER BOGARDUS / D. WRIGHT

BORING LOCATION MW 4
GROUND ELEV. _____
DATE STARTED _____ DATE ENDED _____

DEPTH	"N" VALVE	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	SAMPLE DESCRIPTION	STRA. CHG. GEN. DESC.	EQUIPMENT INSTALLED	FIELD TESTING	RMKS
		1		0-2'	1-3-4-4	Brown, wet, fine to coarse SAND, some Silt, roots 1.5'				
						Brown, moist, SILT, trace fine to coarse Gravel, trace Clay 4'				
5		2		5'-6'	18-17-30/0	Tan, dry, SILT, some fine to coarse GRAVEL (TILL)				
						10.5'				
10		3		10'-11.5'	17-21-36	Green, dry, SILT (weathered siltstone) 12'				
						Green, wet, SILT				
						Green, moist, SILT (weathered siltstone) 13'				
15		4		50'-50.5'	50	B.O.B. 15.5'				

REMARKS:

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING NUMBER MW 5
SHEET _____ OF _____
FILE _____

PROJECT LOCATION EASTWOOD, NY

CLIENT PRESTOLITE

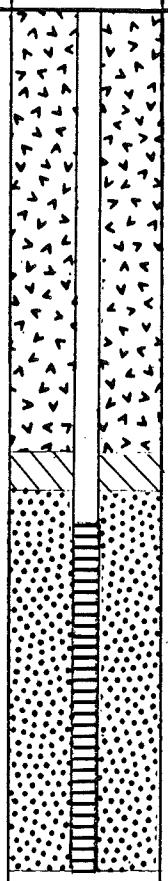
SAMPLER
TYPE: _____
HAMMER FALL _____

GROUNDWATER READINGS

DATE	DEPTH		

BORING CO. PARRATT-WOLFF
FOREMAN ROBERT STEVENS
OBG GEOLOGIST PETER BOGARDUS / D. WRIGHT

BORING LOCATION MW 5
GROUND ELEV. _____
DATE STARTED _____ DATE ENDED _____

DEPTH	"N" VALVE	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	SAMPLE DESCRIPTION	STRA. CHG. GEN. DESC.	EQUIPMENT INSTALLED	FIELD TESTING	RMKS
		1				Miscellaneous FILL				
						3'				
						Brown, dry, SILT, trace Clay				
5		2		5-6.5'	4-10-14					
						9'				
10		3		10-11.5'	16-33-50/.3'	Red-brown, dry, SILT, some Clay, little fine to coarse Gravel (TILL)				
						13.5'				
						Green, moist, SILT, some fine to coarse Gravel, little fine to coarse Sand				
15		4		15-16.5'	16-24-24					
						19.5'				
20		5		20'-21.5'	16-5-3	Green, wet, SILT, some weathered siltstone fragments				
25		6		25'-26.5'	11-34-50					
						B.O.B. 26.5'				

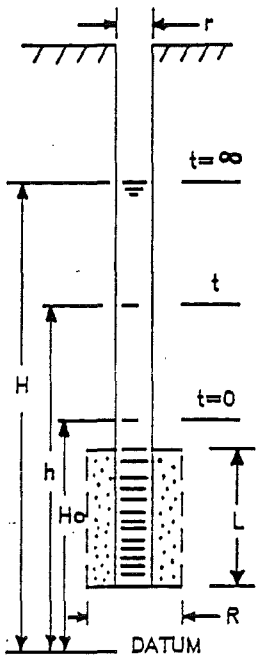
REMARKS:

O'BRIEN & GERE

IN-SITU PERMEABILITY TEST
FIELD LOG

PROJECT PRESTOLITE
WELL NUMBER MW-1
DATE 10/25/85

LOCATION _____
ELEVATION _____

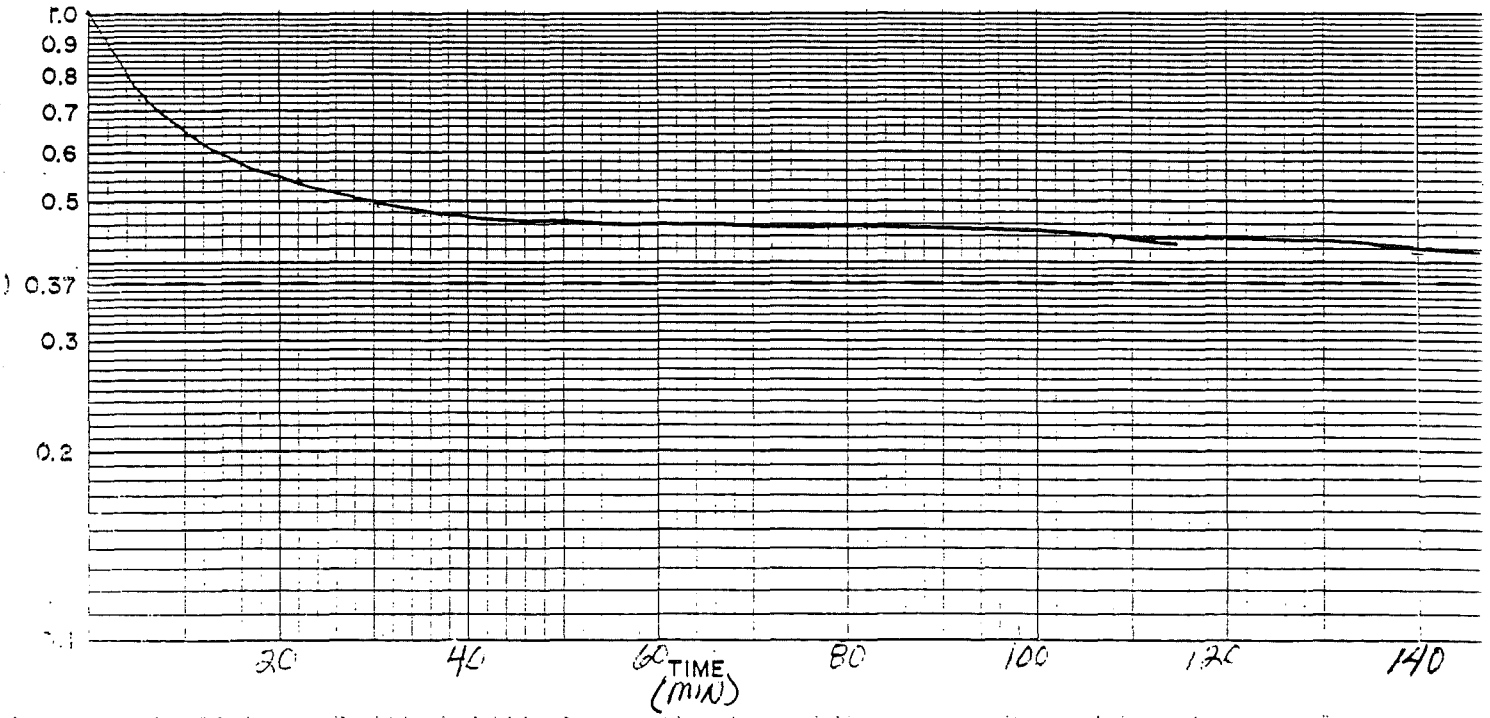


STATIC HEAD (H) 32.5'
PIPE RADIUS (r) .166'
SCREEN RADIUS (R) .25'
SCREEN LENGTH (L) 5'
INITIAL HEAD (Ho) 32.77
HYDRAULIC CONDUCTIVITY :

$$K = \frac{r^2 \ln(L/R)}{2LTo}$$

K= 1.9 x 10 -5 cm/sec

TIME	WATER DEPTH	t	h	H−h / H−Ho
0			32.77	1
.5			32.61	.962
1.13			32.50	.936
2.95			32.15	.866
5.45			31.62	.73
8.0			31.50	.707
10.28			31.25	.645
22.28			30.80	.539
30.2			30.60	.491
50.42			30.51	.470
85.0			30.48	.46



APPENDIX B

Laboratory Name: _____

Case No: _____

Sample Number

Organics Analysis Data Sheet
(Page 2)

DETECTION LIMITS - WATER

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: _____

Date Analyzed: _____

Conc/Dil Factor: _____

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	8
108-95-2	Phenol	10
62-53-3	Aniline	
111-44-4	bis(-2-Chloroethyl)Ether	10
95-57-8	2-Chlorophenol	10
541-73-1	1, 3-Dichlorobenzene	10
106-46-7	1, 4-Dichlorobenzene	10
100-51-6	Benzyl Alcohol	10
95-50-1	1, 2-Dichlorobenzene	10
95-48-7	2-Methylphenol	10
39638-32-9	bis(2-chloroisopropyl)Ether	10
106-44-5	4-Methylphenol	10
621-64-7	N-Nitroso-Di-n-Propylamine	10
67-72-1	Hexachloroethane	10
98-95-3	Nitrobenzene	10
78-59-1	Isophorone	10
88-75-5	2-Nitrophenol	10
105-67-9	2, 4-Dimethylphenol	10
65-85-0	Benzoic Acid	50
111-91-1	bis(-2-Chloroethoxy)Methane	10
120-83-2	2, 4-Dichlorophenol	10
120-82-1	1, 2, 4-Trichlorobenzene	10
91-20-3	Naphthalene	10
106-47-8	4-Chloroaniline	10
87-68-3	Hexachlorobutadiene	10
59-50-7	4-Chloro-3-Methylphenol	10
91-57-6	2-Methylnaphthalene	10
77-47-4	Hexachlorocyclopentadiene	10
88-06-2	2, 4, 6-Trichlorophenol	10
95-95-4	2, 4, 5-Trichlorophenol	50
91-58-7	2-Chloronaphthalene	10
88-74-4	2-Nitroaniline	50
131-11-3	Dimethyl Phthalate	10
208-96-8	Acenaphthylene	10
99-09-2	3-Nitroaniline	50

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10
51-28-5	2, 4-Dinitrophenol	50
100-02-7	4-Nitrophenol	50
132-64-9	Dibenzofuran	10
121-14-2	2, 4-Dinitrotoluene	10
606-20-2	2, 6-Dinitrotoluene	10
84-66-2	Diethylphthalate	10
7005-72-3	4-Chlorophenyl-phenylether	10
86-73-7	Fluorene	10
100-01-6	4-Nitroaniline	50
534-52-1	4, 6-Dinitro-2-Methylphenol	50
86-30-6	N-Nitrosodiphenylamine (1)	10
101-55-3	4-Bromophenyl-phenylether	10
118-74-1	Hexachlorobenzene	10
87-86-5	Pentachlorophenol	50
85-01-8	Phenanthrene	10
120-12-7	Anthracene	10
84-74-2	Di-n-Butylphthalate	10
206-44-0	Fluoranthene	10
92-87-5	Benzidine	
129-00-0	Pyrene	10
85-68-7	Butylbenzylphthalate	10
91-94-1	3, 3'-Dichlorobenzidine	20
56-55-3	Benzo(a)Anthracene	10
117-81-7	bis(2-Ethylhexyl)Phthalate	10
218-01-9	Chrysene	10
117-84-0	Di-n-Octyl Phthalate	10
205-99-2	Benzo(b)Fluoranthene	10
207-08-9	Benzo(k)Fluoranthene	10
50-32-8	Benzo(a)Pyrene	10
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10
53-70-3	Dibenz(a, h)Anthracene	10
191-24-2	Benzo(g, h, i)Perylene	10

(1)-Cannot be separated from diphenylamine

O'BRIEN & GERE

Purgeable Priority Pollutants

CLIENT _____ JOB NO. _____

DESCRIPTION: SOIL/SEDIMENT DETECTION LIMIT

SAMPLE NO. _____ DATE COLLECTED _____ DATE RECD. _____ DATE ANALYZED _____

	Detection Limit* ppb		Detection Limit* ppb
Chloromethane	10	1,2-Dichloropropane	10
Bromomethane	10	t-1,3-Dichloropropene	10
Dichlorodifluoromethane	10	Trichloroethene	10
Vinyl chloride	10	Benzene	10
Chloroethane	10	Dibromochloromethane	10
Methylene chloride	10	1,1,2-Trichloroethane	10
Trichlorofluoromethane	10	c-1,3-Dichloropropene	10
1,1-Dichloroethene	10	2-Chloroethylvinyl ether	100
1,1-Dichloroethane	10	Bromoform	100
t-1,2-Dichloroethene	10	1,1,2,2-Tetrachloroethane	10
Chloroform	10	Tetrachloroethene	10
1,2-Dichloroethane	10	Toluene	10
1,1,1-Trichloroethane	10	Chlorobenzene	10
Carbon tetrachloride	10	Ethylbenzene	10
Bromodichloromethane	10		

Methodology: Federal Register — 40 CFR, Part 136, [redacted] Oct.26,1984

Comments:

* ug/kg - Wet Weight

O'Brien & Gere Engineers, Inc.

O'BRIEN & GERE

Pesticide/PCB Priority Pollutants

CLIENT _____ JOB NO. _____

DESCRIPTION Water Detection Limits

SAMPLE NO. _____ DATE COLLECTED _____ DATE REC'D. _____ DATE ANALYZED _____

	Detection Limit ppb		Detection Limit ppb
α-BHC	0.05	Endosulfan II	0.1
γ-BHC	0.05	4,4'-DDT	0.1
β-BHC	0.05	Endosulfan Sulfate	0.1
Heptachlor	0.05	Endrin Aldehyde	0.1
δ-BHC	0.05	Chlordane	0.5
Aldrin	0.05	Toxaphene	1.0
Heptachlor Epoxide	0.05	PCB-1221	0.5
Endosulfan I	0.05	PCB-1232	0.5
4,4'-DDE	0.05	PCB-1016/1242	0.5
Dieldrin	0.1	PCB-1248	0.5
Endrin	0.1	PCB-1254	1.0
4,4'-DDD	0.1	PCB-1260	1.0

Methodology: Federal Register — 40 CFR, Part 136, December 3, 1979

Comments:

Authorized: _____

Date: _____

O'Brien & Gere Engineers, Inc.
Box 4873 1304 Buckley Rd. Syracuse, NY 13221 / (315) 451-4700

O'BRIEN & GERE

Purgeable Priority Pollutants

CLIENT _____ JOB NO. _____

DESCRIPTION Water Detection Limits

SAMPLE NO. _____ DATE COLLECTED _____ DATE REC'D. _____ DATE ANALYZED _____

	Detection Limit ppb		Detection Limit ppb
Chloromethane	1	1,2-Dichloropropane	1
Bromomethane	1	t-1,3-Dichloropropene	1
Dichlorodifluoromethane	1	Trichloroethene	1
Vinyl chloride	1	Benzene	1
Chloroethane	1	Dibromochloromethane	1
Methylene chloride	1	1,1,2-Trichloroethane	1
Trichlorofluoromethane	1	c-1,3-Dichloropropene	1
1,1-Dichloroethene	1	2-Chloroethylvinyl ether	10
1,1-Dichloroethane	1	Bromoform	10
t-1,2-Dichloroethene	1	1,1,2,2-Tetrachloroethane	1
Chloroform	1	Tetrachloroethene	1
1,2-Dichloroethane	1	Toluene	1
1,1,1-Trichloroethane	1	Chlorobenzene	1
Carbon tetrachloride	1	Ethylbenzene	1
Bromodichloromethane	1		

Methodology: Federal Register — 40 CFR, Part 136, December 3, 1979

Comments:

O'Brien & Gere Engineers, Inc.
Box 4873 [illegible]

Initials _____

Date _____

O'BRIEN & GERE

Acid Priority Pollutants

CLIENT _____ JOB NO. _____

DESCRIPTION Water Detection Limits

SAMPLE NO. _____ DATE COLLECTED _____ DATE REC'D. _____ DATE ANALYZED _____

	Detection Limit ppb		Detection Limit ppb
2-Chlorophenol	1250	2,4,6-Trichlorophenol	1250
2-Nitrophenol	1250	4-Chloro-3-methylphenol	1250
Phenol	1250	2,4-Dinitrophenol	12500
2,4-Dimethylphenol	1250	2-Methyl-4,6-dinitrophenol	12500
2,4-Dichlorophenol	1250	Pentachlorophenol	12500
		4-Nitrophenol	12500

Methodology: Federal Register — 40 CFR, Part 136, December 3, 1979

Comments:

Authorized: _____

Date: _____

O'Brien & Gere Engineers, Inc.
Box 4873 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 451-4700

O'BRIEN & GERE

Base/Neutral Priority Pollutants

CLIENT _____ JOB NO. _____

DESCRIPTION Water Detection Limits

SAMPLE NO. _____ DATE COLLECTED _____ DATE REC'D. _____ DATE ANALYZED _____

	Detection Limit ppb		Detection Limit ppb
1,3-Dichlorobenzene	500	Diethylphthalate	500
1,4-Dichlorobenzene	500	N-nitrosodiphenylamine	500
1,2-Dichlorobenzene	500	Hexachlorobenzene	500
Hexachloroethane	500	4-Bromophenyl phenyl ether	500
Bis (2-chloroethyl) ether	500	Phenanthrene	500
Bis (2-chloroisopropyl) ether	500	Anthracene	500
N-Nitrosodi-n-propylamine	500	Di-n-butyl phthalate	500
Nitrobenzene	500	Fluoranthene	500
Hexachlorobutadiene	500	Pyrene	500
1,2,4-Trichlorobenzene	500	Benzidine	500
Isophorone	500	Butyl benzyl phthalate	500
Naphthalene	500	Bis(2-ethylhexyl)phthalate	500
Bis (2-chloroethoxy) methane	500	Chrysene	500
Hexachlorocyclopentadiene	500	Benzo(a)anthracene	500
2-Chloronaphthalene	500	3,3-Dichlorobenzidine	500
Acenaphthylene	500	Di-n-octylphthalate	500
Acenaphthene	500	Benzo(b)fluoranthene	500
Dimethyl phthalate	500	Benzo(k)fluoranthene	500
2,6-Dinitrotoluene	500	Benzo(a)pyrene	500
Fluorene	500	Indeno(1,2,3-cd)pyrene	1250
4-Chlorophenyl phenyl ether	500	Dibenzo(a,h)anthracene	1250
2,4-Dinitrotoluene	500	Benzo(g,h,i)perylene	1250
1,2-Diphenylhydrazine	500	N-Nitrosodimethyl Amine	500

Methodology: Federal Register — 40 CFR, Part 136, December 3, 1979

Comments:

Authorized: _____

Date: _____

O'Brien & Gere Engineers, Inc.
Box 4873 / 1304 Buckley Rd. / Syracuse, NY 13221 / (315) 451-4700

O'BRIEN & GERE

Laboratory Report

CLIENT _____ O & G NO. _____

DESCRIPTION Water Detection Limits

DATE COLLECTED _____ DATE REC'D. _____ DATE ANALYZED _____

	Detection Limit (ppm)
Antimony	0.1
Arsenic	0.01
Beryllium	0.01
Cadmium	0.01
Chromium	0.01
Copper	0.01
Lead	0.01
Mercury	0.0005
Nickel	0.01
Selenium	0.01
Silver	0.01
Thallium	1.0
Zinc	0.01
Cyanide	0.05

Methodology: Federal Register — 40 CFR, Part 136, December 3, 1979

Units: mg/ℓ (ppm) unless otherwise noted

Comments:

Authorized: _____

Date: _____

O'Brien & Gere Engineers, Inc.
Box 4873 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 451-4700

EPA LIST OF 129 PRIORITY POLLUTANTS

31 are purgeable organics

Code	Compound	Code	Compound	Code	Compound
G02	Acrolein	A50	1,1,2-Trichloroethane	A55	Bromoform
G03	Acrylonitrile	A51	1,1,2,2-Tetrachloroethane	A56	Dichlorobromomethane
D01	Benzene	A52	Chloroethane	A57	Trichlorofluoromethane
D02	Toluene	B25	2-Chloroethyl vinyl ether	A58	Dichlorodifluoromethane
D06	Ethylbenzene	A03	Chloroform	A59	Chlorodibromomethane
A04	Carbon tetrachloride	A60	1,2-Dichloropropane	A13	Tetrachloroethylene
A30	Chlorobenzene	A61	1,3-Dichloropropene	A12	Trichloroethylene
A48	1,2-Dichloroethane	A02	Methylene chloride	A10	Vinyl chloride
A07	1,1,1-Trichloroethane	A01	Methyl chloride	A28	1,2-trans-Dichloroethylene
A49	1,1-Dichloroethane	A54	Methyl bromide	B03	bis(Chloromethyl) ether
A26	1,1-Dichloroethylene				

46 are base/neutral extractable organic compounds

A31	1,2-Dichlorobenzene	F36	bis(2-Ethylhexyl) phthalate	D23	Indeno(1,2,3-c,d) pyrene
A32	1,3-Dichlorobenzene	F39	Di-n-octyl phthalate	D22	Dibenzo(a,h)anthracene
A33	1,4-Dichlorobenzene	F41	Dimethyl phthalate	D19	Benzo(g,h,i)perylene
A53	Hexachloroethane	F40	Diethyl phthalate	B33	4-Chlorophenyl phenyl ether
A16	Hexachlorobutadiene	F38	Di-n-butyl phthalate	F43	3,3-Dichlorobenzidine
A35	Hexachlorobenzene	D20	Fluorene	F42	Benzidine
A34	1,2,4-Trichlorobenzene	D09	Fluoranthene	B26	bis(2-Chloroethyl) ether
A61	bis(2-Chloroethoxy) methane	D16	Chrysene	F20	1,2-Diphenylhydrazine
D05	Naphthalene	F99	Pyrene	A17	Hexachlorocyclopentadiene
A43	2-Chloronaphthalene	D21	Phenanthrene	G28	N-Nitrosodiphenylamine
G04	Isophorone	D18	Anthracene	D17	Acenaphthylene
F33	Nitrobenzene	D13	Benzo(a)anthracene	D08	Acenaphthene
F34	2,4-Dinitrotoluene	D14	Benzo(b)fluoranthene	F37	Butyl benzyl phthalate
F35	2,6-Dinitrotoluene	D15	Benzo(k)fluoranthene	G08	N-Nitrosodimethylamine
B34	4-Bromophenyl phenyl ether	D10	Benzo(a)pyrene		
G29	N-Nitrosodi-n-propylamine	B27	bis(2-Chloroisopropyl) ether		

11 are acid extractable organic compounds

D24	Phenol	F32	4,6-Dinitro-o-cresol	B30	2,4-Dichlorophenol
F29	2-Nitrophenol	B31	Pentachlorophenol	B28	2,4,6-Trichlorophenol
F30	4-Nitrophenol	B32	p-Chloro-m-cresol	F44	2,4-Dimethylphenol
F31	2,4-Dinitrophenol	B29	2-Chlorophenol		

26 are pesticides/PCB's

C36	alpha-Endosulfan	C34	4,4'-DDE	A38	Aroclor 1232
C37	beta-Endosulfan	C35	4,4'-DDD	A39	Aroclor 1242
C38	Endosulfan sulfate	C03	4,4'-DDT	A40	Aroclor 1248
A44	alpha-BHC	C41	Heptachlor	A41	Aroclor 1254
A45	beta-BHC	C42	Heptachlor epoxide	A42	Aroclor 1260
A47	delta-BHC	C02	Chlordane	B35	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
C26	gamma-BHC (Lindane)	C10	Toxaphene		
C01	Aldrin	A36	Aroclor 1016	C39	Endrin
C01	Dieldrin	A37	Aroclor 1221	C40	Endrin aldehyde

13 are metals

M01	Antimony	M06	Copper	M10	Selenium
M02	Arsenic	M07	Lead	M11	Silver
M03	Beryllium	M08	Mercury	M12	Thallium
M04	Cadmium	M09	Nickel	M13	Zinc
M05	Chromium				

Miscellaneous

G14	cyanides
G01	Asbestos

APPENDIX C

O'BRIEN & GERE

Laboratory Report

1174.005.511

CLIENT Prestolite JOB NO. 1194.005.517

DESCRIPTION

DATE COLLECTED 10-2-84 DATE REC'D. 10-24-84 DATE ANALYZED

	Sample #	PH	SPCOND	TOC	TOX	O&G	BOD5	TSS	TKN	TIP	AS	BA
Tank 1	43944	7.2	150.	10.		<1.	—	—	—	—	—	—
" 2	43945	7.2	150.	13.		70.	—	—	—	—	—	—
" 3	43946	8.1	3360.	120.		460.	—	—	—	—	—	—
" 4	43947	12.5	323500.	160.		74.	—	—	—	—	—	—
4-Tank Comp.	43948	13.1	69200.	<1.		150.		115.				<0.1
Basement	43949	10.3	27600.	34.		10.		1.				<0.1

	CD	CR	CR-HEX	PB	HG	SE	AG	CU	FE	MN	SO4
43948	4.9	0.93		0.15			0.02	6.9	0.43	0.03	120.
43949	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	25.

	ZN	CL	CN	NI	PHENL	SN
43948	8.3	180.	18.4	0.34	<0.001	
43949	0.01	4.	29.	<0.01	0.004	

Methodology: Federal Register — 40 CFR, Part 136, December 3, 1979

Comments:

Authorized:

Date:

O'Brien & Gere Engineers, Inc.
Box 4873 / 1304 Buckley Rd / Syracuse, NY / 13221 / (315) 451-4700

O'BRIEN & GERE

Laboratory Report

CLIENT Prestolite JOB NO. 1194.004.517

DESCRIPTION Tanks

DATE COLLECTED 10-14-85 DATE REC'D. 10-16-85 DATE ANALYZED

Description	#1	#2	#3	#4
Sample*	25486	25487	25488	25489
CN mg/L WET WT	<5.	157	1100.	<5.
~~CN-AM~~				
PHENOL	0.660	0.60	0.40	<0.02
OIG	2080.	77000.	27200.	180.
CR	12.	91.	1060.	<1.
CU	33600.	107.	80.	42.
NI	39.	19.	16.	33.
SN	1240.	355.	<1.	<1.
ZN	795.	1320.	3250.	0.17
FE	14510.	20120.	13210.	4830.
PCB	<5	2.9	2.2	*
AROCLOR	—	1254	1254	*
EP TOX LEACHATES:	45654	45655	45656	45657
AS	<0.01	<0.01	<0.01	<0.01
BA	1.6	<0.1	<0.	<0.1
CD	0.08	0.52	8.4	0.05
CR+HEX	0.02	0.01	0.05	0.08
PB	-0.14	<0.01	<0.01	0.41
HG	<0.0005	<0.0005	<0.0005	<0.0005
SE	<0.01	<0.01	<0.01	<0.01
AG	<0.01	<0.01	0.03	0.08

Methodology: Federal Register — 40 CFR, Part 136, [redacted] Oct. 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments: * INSUFFICIENT SAMPLE REMAINING FOR THIS TEST

D. Wright

Authorized:

Date: 12-10-85

O'Brien & Gere Engineers, Inc.
Box 4873 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 451-4700

O'BRIEN & GERE

Purgeable Priority Pollutants

CLIENT PRESTOLITE JOB NO. 1194.005.517

DESCRIPTION Composite of Top, Middle and Bottom of Tank 3

SAMPLE NO. 75147 DATE COLLECTED 12-21-84 DATE REC'D. 12-21-84 DATE ANALYZED 1-14-85

	ppm		ppm
Chloromethane	<1	1,2-Dichloropropane	<1
Bromomethane	<1	t-1,3-Dichloropropene	<1
Dichlorodifluoromethane	<1	Trichloroethene	<1
Vinyl chloride	<1	Benzene	<1
Chloroethane	<1	Dibromochloromethane	<1
Methylene chloride	<1	1,1,2-Trichloroethane	<1
Trichlorofluoromethane	<1	c-1,3-Dichloropropene	<1
1,1-Dichloroethene	<1	2-Chloroethylvinyl ether	<1
1,1-Dichloroethane	<1	Bromoform	<1
t-1,2-Dichloroethene	<1	1,1,2,2-Tetrachloroethane	<1
Chloroform	<1	Tetrachloroethene	<1
1,2-Dichloroethane	<1	Toluene	<1
1,1,1-Trichloroethane	<1	Chlorobenzene	<1
Carbon tetrachloride	<1	Ethylbenzene	<1
Bromodichloromethane	<1		

Methodology: Federal Register — 40 CFR, Part 136, December 3, 1979

Comments:

Authorized: D. B. Brondsema

Date: 1/16/85

O'Brien & Gere Engineers, Inc.
Box 4873 1304 Buckley Rd. Syracuse, NY 13221 (315) 451-4700

O'BRIEN & GERE

Purgeable Priority Pollutants

CLIENT PRESTOLITE JOB NO. 1194.005.517

DESCRIPTION Composite of Top, Middle and Bottom of Tank 4

SAMPLE NO. 75148 DATE COLLECTED 12-21-84 DATE REC'D. 12-21-84 DATE ANALYZED 1-14-85

	ppm		ppm
Chloromethane	<1	1,2-Dichloropropane	<1
Bromomethane	<1	t-1,3-Dichloropropene	<1
Dichlorodifluoromethane	<1	Trichloroethene	<1
Vinyl chloride	<1	Benzene	<1
Chloroethane	<1	Dibromochloromethane	<1
Methylene chloride	<1	1,1,2-Trichloroethane	<1
Trichlorofluoromethane	<1	c-1,3-Dichloropropene	<1
1,1-Dichloroethene	<1	2-Chloroethylvinyl ether	<1
1,1-Dichloroethane	<1	Bromoform	<1
t-1,2-Dichloroethene	<1	1,1,2,2-Tetrachloroethane	<1
Chloroform	<1	Tetrachloroethene	<1
1,2-Dichloroethane	<1	Toluene	<1
1,1,1-Trichloroethane	<1	Chlorobenzene	<1
Carbon tetrachloride	<1	Ethylbenzene	<1
Bromodichloromethane	<1		

Methodology: Federal Register — 40 CFR, Part 136, December 3, 1979

Comments:

Authorized: D.R. Brandau

Date: 1/16/85

O'Brien & Gere Engineers, Inc.
Box 4873 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 451-4700

7775

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: O'Brien & Gere Eng., Inc. Case No: PIESTOLITE

Lab Sample ID No: ~~47705~~ MW1 QC Report No:

Sample Matrix: WATER (H_2O) Contract No: 1194.004.517

Data Release Authorized By: Date Sample Received: 10/25/95

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: ~~10/25/95~~ 11/11/95

Date Analyzed: 11/11/95

Conc/Dil Factor: pH

Percent Moisture: (Not Decanted)

CAS Number		(ug/l) or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	5 JB
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethene	5 U
75-34-3	1, 1-Dichloroethane	5 U
156-60-5	Trans-1, 2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethane	5 U
78-93-3	2-Butanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		(ug/l) or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 U
10061-02-6	Trans-1, 3-Dichloropropene	5 U
79-01-6	Trichloroethene	5 U
124-48-1	Dibromochloromethane	5 U
79-00-5	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1, 3-Dichloropropene	5 U
110-75-8	2-Chloroethylvinylether	10 U
75-25-2	Bromoform	5 U
591-78-6	4-Methyl-2-Pentanone	10 U
108-10-1	2-Hexanone	10 U
127-18-4	Tetrachloroethene	5 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
108-88-3	Toluene	5 U
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	5 U

Data Reporting Qualifiers

For reporting results to EPA; the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged however, the definition of each flag must be explicit

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U- Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

Laboratory Name: O'BRIEN & GERE ENG

Case No: PRESTOLITE

Sample Number 47985

>SX230

MCL

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

Date Analyzed: 12/20/85

Conc/Dil Factor: _____

SURROGATES	% RECOV.
Phenol-5- - - - - -	23
2-Fluorophenol- - - -	34
2,4,6-Tribromophenol	19
d-5 Nitrobenzene	101
2-Fluorobiphenyl- -	114
Terphenyl	85.6

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	10 U
08-95-2	Phenol	
2-53-3	Aniline	
111-44-4	bis(-2-Chloroethyl)Ether	
5-57-8	2-Chlorophenol	
41-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
X -6	Benzyl Alcohol	
5-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
06-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
7-72-1	Hexachloroethane	
8-95-3	Nitrobenzene	
78-59-1	Isophorone	
8-75-5	2-Nitrophenol	
05-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	50 U
11-91-1	bis(-2-Chloroethoxy)Methane	10 U
20-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
1-20-3	Naphthalene	
06-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
9-50-7	4-Chloro-3-Methylphenol	
1-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
8-06-2	2,4,6-Trichlorophenol	D
5- 4	2,4,5-Trichlorophenol	50 U
91-58-7	2-Chloronaphthalene	10 U
8-74-4	2-Nitroaniline	50 U
31-11-3	Dimethyl Phthalate	10 U
208-96-8	Acenaphthylene	10 U
9-09-2	3-Nitroaniline	50 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10 U
51-28-5	2,4-Dinitrophenol	50 U
100-02-7	4-Nitrophenol	50 U
132-64-9	Dibenzofuran	10 U
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	D
100-01-6	4-Nitroaniline	50 U
534-52-1	4,6-Dinitro-2-Methylphenol	50 U
86-30-6	N-Nitrosodiphenylamine (1)	10 U
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	D
87-86-5	Pentachlorophenol	50 U
85-01-8	Phenanthrene	10 U
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
92-87-5	Benzidine	
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	D
91-94-1	3,3'-Dichlorobenzidine	20 U
56-55-3	Benzo(a)Anthracene	10 U
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	D

(1)-Cannot be separated from diphenylamine

Organics Analysis Data Sheet
(Page 1)

47986

Laboratory Name: O'Brien & Gere Eng. Inc. Case No: PRESTOLITE

Lab Sample ID No: ~~47986~~ MW2 QC Report No:

Sample Matrix: WATER (H_2O) Contract No: 1194.00U.517

Data Release Authorized By: Date Sample Received: 10/25/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/11/85

Date Analyzed: 11/11/85

Conc/Dil Factor: pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	5 B
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethene	5 U
[illegible]34-3	1, 1-Dichloroethane	5 U
[illegible]6-60-5	Trans-1, 2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethane	5 U
78-93-3	2-Butanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 U
10061-02-6	Trans-1, 3-Dichloropropene	5 U
79-01-6	Trichloroethene	5 U
124-48-1	Dibromochloromethane	5 U
79-00-5	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1, 3-Dichloropropene	5 U
110-75-8	2-Chloroethylvinylether	10 U
75-25-2	Bromoform	5 U
591-78-6	4-Methyl-2-Pentanone	10 U
108-10-1	2-Hexanone	10 U
127-18-4	Tetrachloroethene	5 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
108-88-3	Toluene	5 U
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U- Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: O'BRIEN & GERE ENG

Case No: PRESTOLITE

Sample Number
47986

>SX234
MW2

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

Date Analyzed: 12/20/85

Conc/Dil Factor: _____

SURROGATES	% RECOV.
Phenol-5- - - - - -	20
2-Fluorophenol- - - -	29
2,4,6-Tribromophenol	12
d-5 Nitrobenzene	85
2-Fluorobiphenyl- -	93
Terphenyl	62

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	10 U
08-95-2	Phenol	
-53-3	Aniline	
111-44-4	bis(-2-Chloroethyl)Ether	
-57-8	2-Chlorophenol	
1-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
X -6	Benzyl Alcohol	
-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
3638-32-9	bis(2-chloroisopropyl)Ether	
06-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
-72-1	Hexachloroethane	
8-95-3	Nitrobenzene	
78-59-1	Isophorone	
8-75-5	2-Nitrophenol	
05-67-9	2,4-Dimethylphenol	D
65-85-0	Benzoic Acid	50 U
11-91-1	bis(-2-Chloroethoxy)Methane	10 U
20-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
1-20-3	Naphthalene	
06-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
9-50-7	4-Chloro-3-Methylphenol	
1-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
8-06-2	2,4,6-Trichlorophenol	D
5- -4	2,4,5-Trichlorophenol	50 U
91-58-7	2-Chloronaphthalene	10 U
8-74-4	2-Nitroaniline	50 U
31-11-3	Dimethyl Phthalate	10 U
208-96-8	Acenaphthylene	10 U
9-09-2	3-Nitroaniline	50 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10 U
51-28-5	2,4-Dinitrophenol	50 U
100-02-7	4-Nitrophenol	50 U
132-64-9	Dibenzofuran	10 U
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	D
100-01-6	4-Nitroaniline	50 U
534-52-1	4,6-Dinitro-2-Methylphenol	50 U
86-30-6	N-Nitrosodiphenylamine (1)	10 U
101-55-3	4-Bromophenyl-phenylether	(3 J)
118-74-1	Hexachlorobenzene	D
87-86-5	Pentachlorophenol	50 U
85-01-8	Phenanthrene	10 U
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
92-87-5	Benzidine	
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	D
91-94-1	3,3'-Dichlorobenzidine	20 U
56-55-3	Benzo(a)Anthracene	10 U
117-81-7	bis(2-Ethylhexyl)Phthalate	(1.4 J
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	D

(1)-Cannot be separated from diphenylamine

4706 F
DUPLICATE OF 4775 G

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: O'Brien & Gere Eng Inc. Case No: PRESTOLITE

Lab Sample ID No: [illegible] QC Report No:

Sample Matrix: WATER Contract No: 1194.004.517

Data Release Authorized By: Date Sample Received: 10/25/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/11/85

Date Analyzed: 11/11/85

Conc/Dil Factor: pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	4 JB
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
[illegible]-35-4	1, 1-Dichloroethene	5 U
75-34-3	1, 1-Dichloroethane	5 U
156-60-5	Trans-1, 2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethane	5 U
78-93-3	2-Butanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 U
10061-02-6	Trans-1, 3-Dichloropropene	5 U
79-01-6	Trichloroethene	5 U
124-48-1	Dibromochloromethane	5 U
79-00-5	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1, 3-Dichloropropene	5 U
110-75-8	2-Chloroethylvinylether	10 U
75-25-2	Bromoform	5 U
591-78-6	4-Methyl-2-Pentanone	10 U
108-10-1	2-Hexanone	10 U
127-18-4	Tetrachloroethene	5 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
108-88-3	Toluene	5 U
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample."

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

TT187

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: O'Brien & Gere Eng. Inc Case No: PASTOLITE

Lab Sample ID No: MW3 QC Report No:

Sample Matrix: WATER (H_2O) Contract No: 1194.004.517

Data Release Authorized By: Date Sample Received: 10/25/95

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/11/95

Date Analyzed: 11/11/95

Conc/Dil Factor: pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	5 JB
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethene	5 U
75-34-3	1, 1-Dichloroethane	5 U
156-60-5	Trans-1, 2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethane	5 U
78-93-3	2-Butanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropene	5 U
10061-02-6	Trans-1 3-Dichloropropene	5 U
79-01-6	Trichloroethene	5 U
124-48-1	Dibromochloromethane	5 U
79-00-5	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1, 3-Dichloropropene	5 U
110-75-8	2-Chloroethylvinylether	10 U
75-25-2	Bromoform	5 U
591-78-6	4-Methyl-2-Pentanone	10 U
108-10-1	2-Hexanone	10 U
127-18-4	Tetrachloroethene	5 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
108-88-3	Toluene	5 U
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample."

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Simple component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: O'BRIEN & GERE ENG

Case No: PRESTOLITE

Sample Number
47987

>SX232
MW3

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

Date Analyzed: 12/20/85

Conc/Dil Factor: _____

SURROGATES	% RECOV.
Phenol-5- - - - - -	22
2-Fluorophenol- - - -	34
2,4,6-Tribromophenol	18
d-5 Nitrobenzene	99
2-Fluorobiphenyl- -	110
Terphenyl	87

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	10 U
108-95-2	Phenol	
62-53-3	Aniline	
111-44-4	bis(-2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	50 U
111-91-1	bis(-2-Chloroethoxy)Methane	10 U
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	D
95-95-4	2,4,5-Trichlorophenol	50 U
91-58-7	2-Chloronaphthalene	10 U
88-74-4	2-Nitroaniline	50 U
131-11-3	Dimethyl Phthalate	10 U
208-96-8	Acenaphthylene	10 U
99-09-2	3-Nitroaniline	50 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10 U
51-28-5	2,4-Dinitrophenol	50 U
100-02-7	4-Nitrophenol	50 U
132-64-9	Dibenzofuran	10 U
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	D
100-01-6	4-Nitroaniline	50 U
534-52-1	4,6-Dinitro-2-Methylphenol	50 U
86-30-6	N-Nitrosodiphenylamine (1)	10 U
101-55-3	4-Bromophenyl-phenylether	(4 J)
118-74-1	Hexachlorobenzene	D
87-86-5	Pentachlorophenol	50 U
85-01-8	Phenanthrene	10 U
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
92-87-5	Benzidine	
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	D
91-94-1	3,3'-Dichlorobenzidine	20 U
56-55-3	Benzo(a)Anthracene	10 U
117-81-7	bis(2-Ethylhexyl)Phthalate	(1 J)
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	D

(1) - Cannot be separated from diphenylamine

47988

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: O'Brien & Gere Eng. Inc. Case No: FIRESTONE

Lab Sample ID No: MW 4 QC Report No:

Sample Matrix: WATER (H_2O) Contract No: 1194.004.517

Data Release Authorized By: Date Sample Received: 10/25/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/11/85

Date Analyzed: 11/11/85

Conc/Dil Factor: pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	4 3JB
67-64-1	Acetone	10U
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
591-78-6	4-Methyl-2-Pentanone	10U
108-10-1	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5U
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged; however, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U- Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Simple compound pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: O'BRIEN & GERE ENG

Case No: PRESTOLITE

Sample Number
47988

>SX233
MW-4

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

Date Analyzed: 12/20/85

Conc/Dil Factor: _____

SURROGATES	% RECOV.
Phenol-5- - - - - -	20
2-Fluorophenol- - -	32
2,4,6-Tribromophenol	—
d-5 Nitrobenzene	106
2-Fluorobiphenyl- -	114
Terphenyl	84

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	10 U
108-95-2	Phenol	
62-53-3	Aniline	
111-44-4	bis(-2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
108-60-1	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	D
65-85-0	Benzoic Acid	50 U
111-91-1	bis(-2-Chloroethoxy)Methane	10 U
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	D
95-95-	2,4,5-Trichlorophenol	50 U
91-58-7	2-Chloronaphthalene	10 U
88-74-4	2-Nitroaniline	50 U
131-11-3	Dimethyl Phthalate	10 U
208-96-8	Acenaphthylene	10 U
99-09-2	3-Nitroaniline	50 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10 U
51-28-5	2,4-Dinitrophenol	50 U
100-02-7	4-Nitrophenol	50 U
132-64-9	Dibenzofuran	10 U
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	D
100-01-6	4-Nitroaniline	50 U
534-52-1	4,6-Dinitro-2-Methylphenol	50 U
86-30-6	N-Nitrosodiphenylamine (1)	10 U
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	D
87-86-5	Pentachlorophenol	50 U
85-01-8	Phenanthrene	10 U
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
92-87-5	Benzidine	
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	D
91-94-1	3,3'-Dichlorobenzidine	20 U
56-55-3	Benzo(a)Anthracene	10 U
117-81-7	bis(2-Ethylhexyl)Phthalate	(1.2 J)
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	D

(1)-Cannot be separated from diphenylamine

Laboratory Name: O'BRIEN & GERE ENG

Case No: PRESTOLITE

Sample Number: 47989

>SX234

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

Date Analyzed: 12/20/85

Conc/Dil Factor: _____

SURROGATES	% RECOV.
Phenol-5- - - - - -	26
2-Fluorophenol- - - -	9
2,4,6-Tribromophenol	16
d-5 Nitrobenzene	80
2-Fluorobiphenyl - -	85
Terphenyl	62

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	10 U
108-95-2	Phenol	
62-53-3	Aniline	
111-44-4	bis(-2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
108-60-1	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	D
65-85-0	Benzoic Acid	50 U
111-91-1	bis(-2-Chloroethoxy)Methane	10 U
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	D
95-95-4	2,4,5-Trichlorophenol	50 U
91-58-7	2-Chloronaphthalene	10 U
88-74-4	2-Nitroaniline	50 U
131-11-3	Dimethyl Phthalate	10 U
208-96-8	Acenaphthylene	10 U
99-09-2	3-Nitroaniline	50 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10 U
51-28-5	2,4-Dinitrophenol	50 U
100-02-7	4-Nitrophenol	50 U
132-64-9	Dibenzofuran	10 U
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	D
100-01-6	4-Nitroaniline	50 U
534-52-1	4,6-Dinitro-2-Methylphenol	50 U
86-30-6	N-Nitrosodiphenylamine (1)	10 U
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	D
87-86-5	Pentachlorophenol	50 U
85-01-8	Phenanthrene	10 U
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
92-87-5	Benzidine	
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	D
91-94-1	3,3'-Dichlorobenzidine	20 U
56-55-3	Benzo(a)Anthracene	10 U
117-81-7	bis(2-Ethylhexyl)Phthalate	(1.8 J)
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenzo(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	D

(1)-Cannot be separated from diphenylamine

Laboratory Name: O'BRIEN & GERE ENG

Case No: PRESTOLITE

Sample Number 47990

MS # 47989

> SX235. MW 5 ppb

Organics Analysis Data Sheet
(Page 2)

MATRIX SPIKE
* = Spiked compounds

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

Date Analyzed: 12/20/85

Conc/Dil Factor: _____

SURROGATES	% RECOV.
Phenol-5- - - - - -	25
2-Fluorophenol- - - -	36
2,4,6-Tribromophenol	19
d-5 Nitrobenzene	115
2-Fluorobiphenyl - -	130
Terphenyl	90

CAS Number		ug/l or ug/Kg (Circle One)	
62-75-9	N-Nitrosodimethylamine	10 U	
08-95-2	Phenol	(50)	*
-53-3	Aniline		
111-44-4	bis(-2-Chloroethyl)Ether		
-57-8	2-Chlorophenol	(116)	*
41-73-1	1,3-Dichlorobenzene		
106-46-7	1,4-Dichlorobenzene	(38)	*
X -6	Benzyl Alcohol		
-50-1	1,2-Dichlorobenzene		
95-48-7	2-Methylphenol		
9638-32-9	bis(2-chloroisopropyl)Ether		
06-44-5	4-Methylphenol		
621-64-7	N-Nitroso-Di-n-Propylamine	(60)	*
7-72-1	Hexachloroethane		
8-95-3	Nitrobenzene		
78-59-1	Isophorone		
8-75-5	2-Nitrophenol		
05-67-9	2,4-Dimethylphenol		
65-85-0	Benzoic Acid	50 U	
11-91-1	bis(-2-Chloroethoxy)Methane	10 U	
20-83-2	2,4-Dichlorophenol		
120-82-1	1,2,4-Trichlorobenzene	(43)	*
1-20-3	Naphthalene		
06-47-8	4-Chloroaniline		
87-68-3	Hexachlorobutadiene		
9-50-7	4-Chloro-3-Methylphenol	(146)	*
1-57-6	2-Methylnaphthalene		
77-47-4	Hexachlorocyclopentadiene		
8-06-2	2,4,6-Trichlorophenol	D	
5- 2	2,4,5-Trichlorophenol	50 U	
91-58-7	2-Chloronaphthalene	10 U	
8-74-4	2-Nitroaniline	50 U	
31-11-3	Dimethyl Phthalate	10 U	
208-96-8	Acenaphthylene	10 U	
9-09-2	3-Nitroaniline	50 U	

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	10 U (67)	*
51-28-5	2,4-Dinitrophenol	50 U	
100-02-7	4-Nitrophenol	50 U (35)	*
132-64-9	Dibenzofuran	10 U	
121-14-2	2,4-Dinitrotoluene	(49)	*
606-20-2	2,6-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenyl-phenylether		
86-73-7	Fluorene	D	
100-01-6	4-Nitroaniline	50 U	
534-52-1	4,6-Dinitro-2-Methylphenol	50 U	
86-30-6	N-Nitrosodiphenylamine (1)	10 U	
101-55-3	4-Bromophenyl-phenylether		
118-74-1	Hexachlorobenzene	D	
87-86-5	Pentachlorophenol	50 U (31)	*
85-01-8	Phenanthrene	10 U	
120-12-7	Anthracene		
84-74-2	Di-n-Butylphthalate		
206-44-0	Fluoranthene		
92-87-5	Benzidine		
129-00-0	Pyrene	(6)	*
85-68-7	Butylbenzylphthalate	D	
91-94-1	3,3'-Dichlorobenzidine	20 U	
56-55-3	Benzo(a)Anthracene	10 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	(1.3J)	*
218-01-9	Chrysene		
117-84-0	Di-n-Octyl Phthalate		
205-99-2	Benzo(b)Fluoranthene		
207-08-9	Benzo(k)Fluoranthene		
50-32-8	Benzo(a)Pyrene		
193-39-5	Indeno(1,2,3-cd)Pyrene		
53-70-3	Dibenz(a,h)Anthracene		
191-24-2	Benzo(g,h,i)Perylene	D	

(1) - Cannot be separated from diphenylamine

Laboratory Name: O'BRIEN & GERE ENG

Case No: PRESTOLITE

Sample Number: 47991 ≡ MSD #47989

SX236

Organics Analysis Data Sheet
(Page 2)

MATRIX SPIKE DUPLICATE

* = Spiked compounds

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

Date Analyzed: 12/20/85

Conc/Dil Factor: _____

SURROGATES	% RECOV.
Phenol-5- - - - - -	29
2-Fluorophenol- - - -	35
2,4,6-Tribromophenol	20
d-5 Nitrobenzene	91
2-Fluorobiphenyl- -	106
Terphenyl	79

CAS Number		ug/l or ug/Kg (Circle One)	
62-75-9	N-Nitrosodimethylamine	10 U	
108-95-2	Phenol	(54)	*
62-53-3	Aniline		
111-44-4	bis(-2-Chloroethyl)Ether		
95-57-8	2-Chlorophenol	(95)	*
541-73-1	1,3-Dichlorobenzene		
106-46-7	1,4-Dichlorobenzene	(33)	*
100-51-6	Benzyl Alcohol		
95-50-1	1,2-Dichlorobenzene		
95-48-7	2-Methylphenol		
108638-32-9	bis(2-chloroisopropyl)Ether		
106-44-5	4-Methylphenol		
621-64-7	N-Nitroso-Di-n-Propylamine	50	*
67-72-1	Hexachloroethane		
98-95-3	Nitrobenzene		
78-59-1	Isophorone		
88-75-5	2-Nitrophenol		
105-67-9	2,4-Dimethylphenol	D	
65-85-0	Benzoic Acid	50 U	
111-91-1	bis(-2-Chloroethoxy)Methane	10 U	
120-83-2	2,4-Dichlorophenol		
120-82-1	1,2,4-Trichlorobenzene	34	*
91-20-3	Naphthalene		
106-47-8	4-Chloroaniline		
87-68-3	Hexachlorobutadiene		
59-50-7	4-Chloro-3-Methylphenol	124	*
91-57-6	2-Methylnaphthalene		
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2,4,6-Trichlorophenol	D	
95-95-4	2,4,5-Trichlorophenol	50 U	
91-58-7	2-Chloronaphthalene	10 U	
88-74-4	2-Nitroaniline	50 U	
131-11-3	Dimethyl Phthalate	10 U	
208-96-8	Acenaphthylene	10 U	
99-09-2	3-Nitroaniline	50 U	

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	10 U (52)	*
51-28-5	2,4-Dinitrophenol	50 U	
100-02-7	4-Nitrophenol	50 U	
132-64-9	Dibenzofuran	10 U	
121-14-2	2,4-Dinitrotoluene	(51)	*
606-20-2	2,6-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenyl-phenylether		
86-73-7	Fluorene	D	
100-01-6	4-Nitroaniline	50 U	
534-52-1	4,6-Dinitro-2-Methylphenol	50 U	
86-30-6	N-Nitrosodiphenylamine (1)	10 U	
101-55-3	4-Bromophenyl-phenylether		
118-74-1	Hexachlorobenzene	D	
87-86-5	Pentachlorophenol	50 U (44)	*
85-01-8	Phenanthrene	10 U	
120-12-7	Anthracene		
84-74-2	Di-n-Butylphthalate		
206-44-0	Fluoranthene		
92-87-5	Benzidine		
129-00-0	Pyrene	(10)	*
85-68-7	Butylbenzylphthalate	D	
91-94-1	3,3'-Dichlorobenzidine	20 U	
56-55-3	Benzo(a)Anthracene	10 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	(15)	*
218-01-9	Chrysene		
117-84-0	Di-n-Octyl Phthalate		
205-99-2	Benzo(b)Fluoranthene		
207-08-9	Benzo(k)Fluoranthene		
50-32-8	Benzo(a)Pyrene		
193-39-5	Indeno(1,2,3-cd)Pyrene		
53-70-3	Dibenz(a,h)Anthracene		
191-24-2	Benzo(g,h,i)Perylene	D	

(1)-Cannot be separated from diphenylamine

T 1101

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: O'Brien & Gere Eng. Inc. | Case No: PRESTOLITE

Lab Sample ID No: MW05 | QC Report No: _____

Sample Matrix: WATER (H_2O) | Contract No: 1194.004.517

Data Release Authorized By: _____ | Date Sample Received: 10/25/95

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/11/95

Date Analyzed: 11/11/95

Conc/Dil Factor: _____ pH _____

Percent Moisture: (Not Decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	5.4JB
67-64-1	Acetone	6 JB
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
591-78-6	4-Methyl-2-Pentanone	10U
108-10-1	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5U
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected." The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

4TTYU

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: O'Brien & Gere Eng., Inc.
Case No: FACTOLETE

Lab Sample ID No: MW5 D.P
QC Report No:

Sample Matrix: WATER (H_2O)
Contract No: 1194.0C4.517

Data Release Authorized By:
Date Sample Received: 10/25/85

Volatile Compounds

MATRIX SPIKE
* = Spiked compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/11/85
Date Analyzed: 11/11/85
Conc/Dil Factor: pH
Percent Moisture: (Not Decanted)

CAS Number		(ug/L) or ug/Kg (Circle One)	
74-87-3	Chloromethane	10 U	
74-83-9	Bromomethane	10 U	
75-01-4	Vinyl Chloride	10 U	
75-00-3	Chloroethane	10 U	
75-09-2	Methylene Chloride	4 JB	
67-64-1	Acetone	10 U	
75-15-0	Carbon Disulfide	5 U	
75-35-4	1, 1-Dichloroethene	60	*
75-34-3	1, 1-Dichloroethane	5 U	
156-60-5	Trans-1, 2-Dichloroethene	5 U	
67-66-3	Chloroform	5 U	
107-06-2	1, 2-Dichloroethane	5 U	
78-93-3	2-Butanone	10 U	
71-55-6	1, 1, 1-Trichloroethane	5 U	
56-23-5	Carbon Tetrachloride	5 U	
108-05-4	Vinyl Acetate	10 U	
75-27-4	Bromodichloromethane	5 U	

CAS Number		(ug/L) or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5 U	
10061-02-6	Trans-1, 3-Dichloropropene	5 U	
79-01-6	Trichloroethene	44	*
124-48-1	Dibromochloromethane	5 U	
79-00-5	1, 1, 2-Trichloroethane	5 U	
71-43-2	Benzene	44	*
10061-01-5	cis-1, 3-Dichloropropene	5 U	
110-75-8	2-Chloroethylvinylether	10 U	
75-25-2	Bromoform	5 U	
591-78-6	4-Methyl-2-Pentanone	10 U	
108-10-1	2-Hexanone	10 U	
127-18-4	Tetrachloroethene	5 U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U	
108-88-3	Toluene	45	*
108-90-7	Chlorobenzene	45	*
100-41-4	Ethylbenzene	5 U	
100-42-5	Styrene	5 U	
	Total Xylenes	5 U	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/L and a concentration of 3 µg/L is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: O'Brien & Gere Eng. Inc.
Case No: PRESTOLITE
Lab Sample ID No: [illegible]
QC Report No:
Sample Matrix: WATER (H_2O)
Contract No: 1194.004.519
Data Release Authorized By:
Date Sample Received: 10/25/95

Volatile Compounds

MATRIX SPIKE DUPLICATE
* = Spiked compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/11/95
Date Analyzed: 11/11/95
Conc/Dil Factor: pH
Percent Moisture: (Not Decanted)

CAS Number		ug/L or ug/Kg (Circle One)	
74-87-3	Chloromethane	10U	
74-83-9	Bromomethane	10U	
75-01-4	Vinyl Chloride	10U	
75-00-3	Chloroethane	10U	
75-09-2	Methylene Chloride	4JB	
67-64-1	Acetone	10U	
75-15-0	Carbon Disulfide	5U	
[illegible]-35-4	1,1-Dichloroethene	59	*
[illegible]-34-3	1,1-Dichloroethane	5U	
156-60-5	Trans-1,2-Dichloroethene	5U	
67-66-3	Chloroform	5U	
107-06-2	1,2-Dichloroethane	5U	
78-93-3	2-Butanone	10U	
71-55-6	1,1,1-Trichloroethane	5U	
56-23-5	Carbon Tetrachloride	5U	
108-05-4	Vinyl Acetate	10U	
75-27-4	Bromodichloromethane	5U	

CAS Number		ug/L or ug/Kg (Circle One)	
78-87-5	1,2-Dichloropropane	5U	
10061-02-6	Trans-1,3-Dichloropropene	5U	
79-01-6	Trichloroethene	44J	*
124-48-1	Dibromochloromethane	5U	
79-00-5	1,1,2-Trichloroethane	5U	
71-43-2	Benzene	44	*
10061-01-5	cis-1,3-Dichloropropene	5U	
110-75-8	2-Chloroethylvinylether	10U	
75-25-2	Bromoform	5U	
591-78-6	4-Methyl-2-Pentanone	10U	
108-10-1	2-Hexanone	10U	
127-18-4	Tetrachloroethene	5U	
79-34-5	1,1,2,2-Tetrachloroethane	5U	
108-88-3	Toluene	45	*
108-90-7	Chlorobenzene	45	*
100-41-4	Ethylbenzene	5U	
100-42-5	Styrene	5U	
	Total Xylenes	5U	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged; however, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample."

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/L and a concentration of 3 µg/L is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. PRESTOLITE **Contractor** O'BRIEN & GERE **Contract No.** _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
VOA SMO SAMPLE NO. MW5	1,1-Dichloroethene	50	5U	59	118	60	120	2	14	61-145
	Trichloroethene	↓	↓	44	88	44	88	0	14	71-120
	Chlorobenzene			45	90	45	90	0	13	75-130
	Toluene			45	90	45	90	0	13	76-125
	Benzene	↓	↓	44	88	44	88	0	11	76-127
B/N SMO SAMPLE NO. MW5	1,2,4-Trichlorobenzene	50	10 U	34	64	43	86	29 *	28	39-98
	Acenaphthene	↓	↓	52	104	67	134 *	25	31	46-118
	2,4 Dinitrotoluene			51	102 *	49	98 *	4	38	24-96
	Di-n-Butylphthalate			10 U	0 *	10 U	0 *	0	40	11-117
	Pyrene			10	20 *	65	12 *	50 *	31	26-127
	N-Nitroso-Di-n-Propylamine			50	100	60	120 *	18	38	41-116
	1,4-Dichlorobenzene	↓	↓	33	66	38	76	14	28	36-97
ACID SMO SAMPLE NO. MW5	Pentachlorophenol	100	50 U	44	44	31	31	35	50	9-103
	Phenol	↓	10 U	54	54	50	50	8	42	12-89
	2-Chlorophenol		10 U	95	95	116	116	20	40	27-123
	4-Chloro-3-Methylphenol		10 U	124	124 *	146	146 *	16	42	23-97
	4-Nitrophenol	↓	50 U	50 U	0 *	35	35	200 *	50	10-80
PEST SMO SAMPLE NO. _____	Lindane								15	56-123
	Heptachlor								20	40-131
	Aldrin								22	40-120
	Dieldrin								18	52-126
	Endrin								21	56-121
	4,4'-DDT								27	38-127

* ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD:
- VOAs 0 out of 5 ; outside QC limits
- B/N 2 out of 6 ; outside QC limits
- ACID 1 out of 5 ; outside QC limits
- PEST ____ out of ____ ; outside QC ljmits

RECOVERY:
- VOAs 0 out of 10 ; outside QC limits
- B/N 8 out of 12 ; outside QC limits
- ACID 3 out of 10 ; outside QC limits
- PEST ____ out of ____ ; outside QC limits

Comments: _____

O'BRIEN & GERE

Purgeable Priority Pollutants

CLIENT PRESTOLITE JOB NO. 1194.004.517

DESCRIPTION #1

SAMPLE NO. 25486 DATE COLLECTED 10-14-85 DATE REC'D. 10-16-85 DATE ANALYZED 10-29-85

	ppb		ppb
Chloromethane	<100	1,2-Dichloropropane	<100
Bromomethane		t-1,3-Dichloropropene	
Dichlorodifluoromethane		Trichloroethene	
Vinyl chloride		Benzene	
Chloroethane		Dibromochloromethane	
Methylene chloride		1,1,2-Trichloroethane	
Trichlorofluoromethane		c-1,3-Dichloropropene	
1,1-Dichloroethene		2-Chloroethylvinyl ether	<1000
1,1-Dichloroethane		Bromoform	<1000
t-1,2-Dichloroethene		1,1,2,2-Tetrachloroethane	<100
Chloroform		Tetrachloroethene	
1,2-Dichloroethane		Toluene	
1,1,1-Trichloroethane		Chlorobenzene	
Carbon tetrachloride		Ethylbenzene	
Bromodichloromethane			

Methodology: Federal Register — 40 CFR, Part 136, [redacted] Oct. 26, 1984

Comments:

XYLENES	<100

O'Brien & Gere Engineers, Inc.
Box 4873 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 451-4700

Authorized: [signature]

Date: 12-7-85

O'BRIEN & GERE

Purgeable Priority Pollutants

CLIENT PRESTOLITE JOB NO. 1194.004.517

DESCRIPTION #2

SAMPLE NO. 2948 7 DATE COLLECTED 10-14-85 DATE REC'D. 10-16-85 DATE ANALYZED 10-30-85

	ppb		ppb
Chloromethane	<100	1,2-Dichloropropane	<100
Bromomethane	↓	t-1,3-Dichloropropene	↓
Dichlorodifluoromethane	↓	Trichloroethene	↓
Vinyl chloride	↓	Benzene	↓
Chloroethane	↓	Dibromochloromethane	↓
Methylene chloride	↓	1,1,2-Trichloroethane	↓
Trichlorofluoromethane	↓	c-1,3-Dichloropropene	↓
1,1-Dichloroethene	↓	2-Chloroethylvinyl ether	<1000
1,1-Dichloroethane	↓	Bromoform	<1000
t-1,2-Dichloroethene	↓	1,1,2,2-Tetrachloroethane	<100
Chloroform	↓	Tetrachloroethene	↓
1,2-Dichloroethane	↓	Toluene	↓
1,1,1-Trichloroethane	↓	Chlorobenzene	↓
Carbon tetrachloride	↓	Ethylbenzene	4000
Bromodichloromethane	↓		

Methodology: Federal Register — 40 CFR, Part 136, [redacted] Oct. 26, 1984

Comments:

XYLENES 43000

Authorized: [signature]

Date: 12-7-85

O'Brien & Gere Engineers, Inc.
Box 4873 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 451-4700

PRESTOLITE
ANALYTICAL ...A

DATE	SAMPLE	LETTER	NUMBER	DEPTH 1	DEPTH 2	TYPE	AS	BA	CD	CR	CR-HEX	CU	PB	HG	NI	SE	AG
10/23/85	67973	E	5	2	14	17	1	4.5	700.	2.	2.		79.	1010.	.230.	19.	<1.	2.
10/23/85	67975	E	5	3	10	20	1	5.0	1000.	2.	3.		72.	1280.	.310.	22.	<1.	2.
10/23/85	67977	E	5	4	18	21	1	3.9	120.	1.	6.		46.	1600.	.300.	14.	<1.	2.
10/24/85	67985	MW	99	1			3	<.01		<.01	<.01		<.01	<.01	<.5	<.01	<.01	.03
10/24/85	67986		99	2			3	<.01		<.01	<.01		<.01	<.01	<.5	<.01	<.01	.02
10/24/85	67987		99	3			3	<.01		<.01	<.01		<.01	<.01	<.5	<.01	<.01	<.01
10/24/85	67988		99	4			3	<.01		<.01	<.01		<.01	<.01	.5	<.01	<.01	<.01
10/24/85	67989		99	5	1		3	<.01		<.01	<.01		<.01	<.01	<.5	<.01	<.01	<.01
10/24/85	67990		99	5	2		3	<.01		<.01	<.01		<.01	<.01	<.5	<.01	<.01	<.01
10/24/85	67991		99	5	3		3	<.01		<.01	<.01		<.01	<.01	<.5	<.01	<.01	<.01
10/25/85	67979	P	16	5			1	3.8	60.	<1.	2.		67.	41.	.160.	13.	<1.	1.
10/25/85	67981	F	6	1			1	5.0	330.	1.	11.		28.	1880.	.180.	19.	<1.	<1.
10/25/85	67983	K	11	1			1	4.3	80.	2.	15.		17.	18.	.330.	24.	<1.	<1.

PRESTOLITE
ANALYTICAL DATA

DATE	SAMPLE	LETTER	NUMBER	DEPTH 1	DEPTH 2	TYPE	SN	ZN	FE	CN	CN-AM	PHENOL	O&G
10/23/85	67973	5	0	0	0	0							
10/23/85	67973	5	2	14	17	1	<1.	1811.	39400.	<5.			300.
10/23/85	67975	5	3	10	20	1	<1.	1894.	46900.				
10/23/85	67977	5	4	18	21	1	<1.	233.	18090.				
10/24/85	67985	99	1			3		<.01		<.05			
10/24/85	67986	99	2			3		.03		<.05			
10/24/85	67987	99	3			3		.04		<.05			
10/24/85	67988	99	4			3		.03		<.05			
10/24/85	67989	99	5	1		3		.03		<.05			
10/24/85	67990	99	5	2		3		.04		<.05			
10/24/85	67991	99	5	3		3		.03		<.05			
10/25/85	67979	16	5			1	<1.	106.	3220.	<5.		<.1	700.
10/25/85	67981	6	1			1	<1.	534.	5990.	<5.		<.1	400.
10/25/85	67983	11	1			1	<1.	85.	34400.	694.		<.1	400.

PRE[illegible]ITE
VOLATILE ORGANIC [illegible]D PCB RESULTS
1194-0[illegible]517

LETTER	NUMBER	DEPTH 1	DEPTH 2	TYPE	DATE	SAMPLE	CL3CCH3	CCL4	BRCL2CH	DCPAN12	DCPENT13	CL3C2H	BENZ	CLBR2CH	CL3C2112	DCPENC13
	2	1		0	12/31/59	0										
	2	1		1	10/23/85	67957	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	2	2		1	10/23/85	67959	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
B	2	3		1	10/23/85	67961	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	2	4		1	10/23/85	67963	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
D	4	1		1	10/23/85	67947	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	4	2		1	10/23/85	67949	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
G	5	1	0	12	1	10/23/85	67971									
	5	2	14	17	1	10/23/85	67973	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	5	3	10	20	1	10/23/85	67975									
	5	4	18	21	1	10/23/85	67977									
F	6	1			1	10/25/85	67981	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
G	7	1			1	10/23/85	67965	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
H	8	1			1	10/23/85	67951	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	8	2			1	10/23/85	67953	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	8	3			1	10/23/85	67955	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
S	10	1	0	2	1	10/22/85	67943	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	10	1	12	14	1	10/22/85	67945	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
K	11	1			1	10/25/85	67983	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	1			1	10/23/85	67967	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	2			1	10/23/85	67969	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	3	2	4	1	10/22/85	67933	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	3	8	12	1	10/22/85	67935	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
P	16	4	4	6	1	10/22/85	67937	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	5			1	10/25/85	67979	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	6	6	13	1	10/22/85	46064										
	16	6	13	15	1	10/22/85	46065										
	16	7	6	8	1	10/22/85	67939	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	7	14	16	1	10/22/85	67941	<100.	<100.	<100.	<100.	<100.	<100.	<100.	<100.	<100.	<100.

Results reported in units of ug/kg wet weight

PRESTOLITE
VOLATILE ORGANIC AND PCB RESULTS
1194-0517

LETTER	NUMBER	DEPTH 1	DEPTH 2	TYPE	DATE	SAMPLE	CLETHER	CHBR3	CL4C2H2	CL4C2	TOLUENE	CLOROBZ	ETHBENZ	XYLENES	PCB
2	1			0	12/31/59	0									
2	1			1	10/23/85	67957	<100.	<100.	<10.	<10.	<10.	<10.	75.	<10.	<500.
2	2			1	10/23/85	67959	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
2	3			1	10/23/85	67961	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
2	4			1	10/23/85	67963	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
4	1			1	10/23/85	67947	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
4	2			1	10/23/85	67949	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
5	1	0	12	1	10/23/85	67971									<500.
5	2	14	17	1	10/23/85	67973	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
5	3	10	20	1	10/23/85	67975									<500.
5	4	18	21	1	10/23/85	67977									<500.
6	1			1	10/25/85	67981	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
7	1			1	10/23/85	67965	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
8	1			1	10/23/85	67951	<100.	<100.	<10.	<10.	<10.	<10.	17.	250.	<500.
8	2			1	10/23/85	67953	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
8	3			1	10/23/85	67955	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
10	1	0	2	1	10/22/85	67943	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
10	1	12	14	1	10/22/85	67945	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
11	1			1	10/25/85	67983	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
16	1			1	10/23/85	67967	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
16	2			1	10/23/85	67969	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
16	3	2	4	1	10/22/85	67933	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
16	3	8	12	1	10/22/85	67935	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
16	4	4	6	1	10/22/85	67937	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
16	5			1	10/25/85	67979	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
16	6	6	13	1	10/22/85	46064									<500.
16	6	13	15	1	10/22/85	46065									<500.
16	7	6	8	1	10/22/85	67939	<100.	<100.	<10.	<10.	<10.	<10.	<10.	<10.	<500.
16	7	14	16	1	10/22/85	67941	<1000.	<1000.	<100.	<100.	<100.	<100.	<100.	14000.	<500.

Results reported in units of ug/kg wet weight

PRE ITE
VOLATILE ORGANIC ND PCB RESULTS
1194-C 517

LETTER	NUMBER	DEPTH 1	DEPTH 2	TYPE	DATE	SAMPLE	CH3CL	CH3BR	CH2CHCL	C2H5CL	CH2CL2	DCLEN11	DCETAN11	DCLEN12	CHCL3	DCETAN12
	2	1		1	10/23/85	67957	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	2	2		1	10/23/85	67959	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
B	2	3		1	10/23/85	67961	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	2	4		1	10/23/85	67963	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	4	1		1	10/23/85	67947	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
D	4	2		1	10/23/85	67949	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	5	1	0	12	1	10/23/85	67971									
	5	2	14	17	1	10/23/85	67973	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
E	5	3	10	20	1	10/23/85	67975									
	5	4	18	21	1	10/23/85	67977									
F	6	1			1	10/25/85	67981	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
G	7	1			1	10/23/85	67965	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	8	1			1	10/23/85	67951	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
H	8	2			1	10/23/85	67953	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	8	3			1	10/23/85	67955	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
J	10	1	0	2	1	10/22/85	67943	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	10	1	12	14	1	10/22/85	67945	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
K	11	1			1	10/25/85	67983	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	1			1	10/23/85	67967	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	2			1	10/23/85	67969	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	3	2	4	1	10/22/85	67933	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	3	8	12	1	10/22/85	67935	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	4	4	6	1	10/22/85	67937	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	5			1	10/25/85	67979	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	6	6	13	1	10/22/85	46064										
	16	6	13	15	1	10/22/85	46065										
	16	7	6	8	1	10/22/85	67939	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.	<10.
	16	7	14	16	1	10/22/85	67941	<100.	<100.	<100.	<100.	<100.	<100.	<100.	<100.	<100.	<100.

Results reported in units of ug/kg wet weight

APPENDIX D

DOCUMENTATION RECORDS

for

HAZARD RANKING SYSTEM

FACILITY NAME:	Prestolite
LOCATION:	Town of Eastwood Onondaga County New York State
EPA REGION:	2
DATE:	March 11, 1986

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 (45)	1	45	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 3	2		6	
Net Precipitation	0 1 2 3	1		3	
Permeability of the Unsaturated Zone	0 1 2 3	1		3	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score				15	
3 Containment	0 1 2 3	1		3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Hazardous Waste Quantity	0 1 2 3 (4) 5 6 7 8	1	4	8	
Total Waste Characteristics Score			16	26	
5 Targets					3.5
Ground Water Use	0 (1) 2 3	3	3	9	
Distance to Nearest Well/Population Served	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			3	49	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			2160	57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} =	3.77		

FIGURE 2
GROUND WATER ROUTE WORK SHEET

GROUND WATER ROUTE

1. OBSERVED RELEASE: Score = 45

Contaminants Detected (5 maximum):

Arsenic, Mercury, Zinc

- Rationale for attributing the contaminants to the facility:

Downgradient monitoring wells (MW-2, MW-3, MW-4 and MW-5) indicate the presence of the three contaminants listed. However, it should be noted that the concentrations reported are either at or slightly above detection limits. Additional sampling and analyses is deemed appropriate to confirm or deny the presence of arsenic, mercury and zinc.

Note: Because Observed Release scored as 45, proceed to Item 4.

****

2. ROUTE CHARACTERISTICS: Omitted - See Note, Item 1.

Depth to Aquifer of Concern:

- Name/description of aquifer(s) of concern:
- Depth(s) from the ground surface to the highest seasonal level of the saturated zone (water table[s]) of the aquifer of concern:
- Depth from the ground surface to the lowest point of waste disposal/storage:

Net Precipitation:

- Mean annual or seasonal precipitation (list months for seasonal):
- Mean annual lake or seasonal evaporation (list months for seasonal):
- Net precipitation (subtract the above figures):

Permeability of Unsaturated Zone:

- Soil type in unsaturated zone:
- Permeability associated with soil type:

Physical State:

Physical state of substances at time of disposal (or at present time for generated gases):

3. CONTAINMENT: Omitted - See Note, Item 1.

Containment:

- Method(s) of waste or leachate containment evaluated:

- Method with highest score:

****

4. WASTE CHARACTERISTICS:

Toxicity and Persistence: Score = 12

- Compound(s) evaluated: Arsenic, Mercury Lead

- Compound with highest score: Arsenic was the substance chosen as being representative of the potential hazard.

  It should be noted that arsenic, mercury and zinc were detected at levels well below those of Drinking Water Standards and were assigned a score of 12 (3 for Persistence, and 2 for Toxicity) in the interests of being conservative.

Hazardous Waste Quantity: Score = 5

- Basis of estimating and/or computing waste quantity:

  It is estimated that 52,000 gallons of liquids and 6,000 gallons of sediments will have to be removed. Therefore:

  (52,000 + 6,000 x 8.34 lbs/gal = 483,720 lbs x .0005 = 242 tons)

  The value assigned to 126 to 250 tons is 4.

****

5. TARGETS:

Ground Water Use: Score = 1

- Use(s) of aquifer(s) of concern within a three-mile radius of the facility:

  Drinking water in the area surrounding the Prestolite facility is supplied by the City of Syracuse or the Onondaga County Water Authority. Historical reports suggest that this area was connected to public water supplies prior to 1900.

Distance to Nearest Well: Score = 0

- Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

  Historical reports suggest that the entire area was connected to public water supplies prior to 1900.

- Distance to above well or building: Not Applicable.

Population Served by Ground Water Wells Within a Three-Mile Radius:

- Identified water-supply well(s) drawing from aquifer(s) of concern within a three-mile radius and populations served by each:

  Entire area is on municipal water and sewers.

- Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a three-mile radius, and conversion to population (1.5 people per acre):

  As per review of publicly available records, land irrigation is not performed in the area.

- Total population served by ground water within a three-mile radius:

  Entire area served by municipal water.

****

Surface Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 (45)	1	45	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	0 1 2 3	1		3	
1-yr. 24-hr. Rainfall	0 1 2 3	1		3	
Distance to Nearest Surface Water	0 1 2 3	2		6	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score				15	
3 Containment	0 1 2 3	1		3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Hazardous Waste Quantity	0 1 2 3 (4) 5 6 7 8	1	4	8	
Total Waste Characteristics Score			16	26	
5 Targets					4.5
Surface Water Use	(0) 1 2 3	3	0	9	
Distance to a Sensitive Environment	(0) 1 2 3	2	0	6	
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			0	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{SW} =	0		

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

SURFACE WATER ROUTE

1. OBSERVED RELEASE: Score = 45

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Drainage ditch sediments show elevated levels of iron, zinc, copper, chromium and phenol.

Rationale for attributing the contaminants to the facility:

Surface water which enters the site as precipitation or runoff will presumably drain toward the north. This surface runoff will eventually enter Ley Creek and continue to flow to Onondaga Lake.

Note: Because Observed Release scored as 45, proceed to Item 4.

****

2. ROUTE CHARACTERISTICS: Score = Omit - See Note, Item 1.

Facility slope and intervening terrain:

Average slope of facility in percent:

Name/description of nearest downslope surface water:

Average slope of terrain between facility and above-cited surface water body in percent:

Is the facility located either totally or partially in surface water?

Is the facility completely surrounded by areas of higher elevation?

One-year, 24-hour rainfall in inches: Score =

Distance to nearest downslope surface water: Score =

Physical state of waste: Score =

****

3. CONTAINMENT: Score = Omit - See Note, Item 1.

Method(s) of waste or leachate containment evaluated:

Method with highest score:

****

4. WASTE CHARACTERISTICS:

Toxicity and persistence: Score = 12

- Compound(s) evaluated: Iron, zinc, nickel, copper, chromium, mercury, lead, arsenic and phenol.

Compound with highest score:

Phenol was the substance chosen as being representative of the potential hazard that could migrate to ground water. Additionally, phenol gave the highest score from Table 4 of the EPA Federal Register; Vol. 47, No. 137, July 16, 1982.

Hazardous Waste Quantity: Score = 4

- Total quantity of hazardous substances at the facility, excluding those with a containment score of "0". (Give a reasonable estimate even if quantity is above maximum):

242 tons

Basis of estimating and/or computing waste quantity:

It is estimated that 52,000 gallons of liquids and 6,000 gallons of sediments will have to be removed. Therefore:

(52,000 + 6,000 gals) x 8.34 lbs/gal = 483,720 lbs x .0005 =
242 tons/cubic yard

The value assigned to 126 to 250 tons/cubic yard is 4.

****

5. TARGETS:

Surface Water Use: Score = 0

- Use(s) of surface water within three miles downstream of the hazardous substance.

Surface water is not currently used. The area has been, and is, entirely served by municipal water since 1900.

Is there tidal influence? No.

Distance to a sensitive environment: Score = 0

Distance to five-acre (minimum) coastal wetland, if two miles or less: There is no coastal wetland.

Distance to five-acre (minimum) fresh-water wetland, if one mile of less: No fresh-water wetlands exist within one mile of site.

Distance to critical habitat of an endangered species or national wildlife refuge, if one mile or less: No critical habitat or National Wildlife Refuge exists within one mile of site.

Population served by surface water: Score = 0

Since 1900, entire area has been served by municipal water.

Location(s) of water-supply intake(s) within three miles (free-flowing bodies) or one mile (static water bodies) downstream of the hazardous substance and population served by each intake: There are none.

- Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre): Land irrigation is not performed.

Total population served:

Name/description of nearest of above-water bodies: Not Applicable.

Distance to above-cited intakes, measured in stream miles: Not Applicable.

Intake	Distance Downstream

****

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
[1] Observed Release	(0) 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line [1] is 0, the S_a = 0. Enter on line [5]. If line [1] is 45, then proceed to line [2].					
[2] Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
[3] Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Targets Score			39	
[4] Multiply [1] x [2] x [3]				35,100	
[5] Divide line [4] by 35,100 and multiply by 100		S_a = 0			

FIGURE 9
AIR ROUTE WORK SHEET

AIR ROUTE

1. OBSERVED RELEASE: Score = 0

Contaminants detected:

Date and location of detection of contaminants:

Methods used to detect the contaminants:

Survey conducted with an HNU Systems, Inc. photoionization analyzer (Model P1-101).

Rationale for attributing the contaminants to the site:

Air monitoring surveys conducted at the Prestolite facility on April 18, 1985 and on October 25, 1985 did not indicate any readings above background levels.

****

2. WASTE CHARACTERISTICS: Not Applicable.

Reactivity and incompatibility:

Most reactive compound:

Most incompatible pair of compounds:

Toxicity:

Most toxic compound:

Hazardous waste quantity:

Total quantity of hazardous waste:

Basis of estimating and/or computing waste quantity:

****

3. TARGETS: Not Applicable.

Population within four-mile radius:

Circle radius used, give population, and indicate how determined:

0 to 4 miles 0 to 1 mile 0 to ½ mile 0 to ¼ mile

Distance to a sensitive environment:

Distance to a five-acre (minimum) coastal wetland, if two miles or less:

Distance to a five-acre (minimum) fresh-water wetland, if one mile or less:

Distance to a critical habitat of an endangered species, if one mile or less:

Land use:

Distance to commercial/industrial area, if one mile or less:

Distance to national or state park, forest, or wildlife reserve, if two miles or less:

Distance to residential area, if two miles or less:

Distance to agricultural land in production within past five years, if one mile or less:

Distance to prime agricultural land in production within past five years, if two miles or less:

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

	S	S^2
Groundwater Route Score (S_{gw})	3.77	14.213
Surface Water Route Score (S_{sw})	0	0
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		14.213
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		3.77
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \,/\, 1.73 = S_M =$		2.18

FIGURE 10
WORKSHEET FOR COMPUTING S_M

APPENDIX E

REFERENCES

Bruce, Dwight H.; Memorial History of Syracuse, New York; H.P. Smith and Company; 1891.

Kantrowitz, I.A.; Ground-Water Resources in the Eastern Oswego River Basin, New York; USGS Basin Planning Report ORB-2; 1970.

O'Brien & Gere Engineers, Inc.; Onondaga Comprehensive Public water Supply Study; CPWS - 21; 1968.

PLAT BOOK; Syracuse, New York and Suburbs; GM Hopkins Co., 1983.